



Chemicals in Washington State Summary Report 1999

Toxic Release Inventory and Hazardous Chemical Inventory

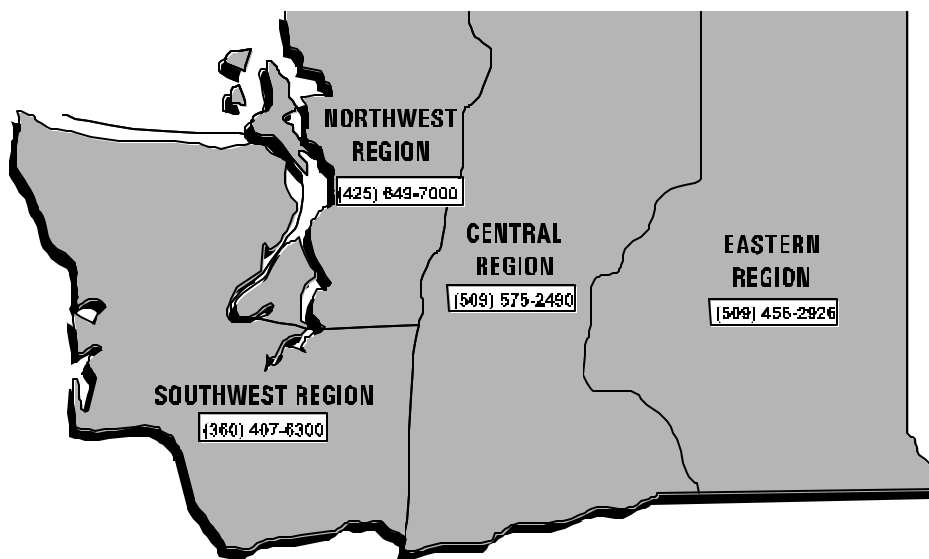
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Toxic Release Inventory and Hazardous Chemical Inventory

A Special Acknowledgement to:

The HSIO Team (Tim Gaffney, Maria Peeler, Idell Hansen, and Sadie Whitener); John Ridgway (HWTR-Environmental Justice); and HWTR Management.

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Executive Summary

Uses of Toxics Release Inventory (TRI) and Hazardous Chemical Inventory (Tier Two) Data

The Department of Ecology (Ecology) uses TRI data as one of several environmental indicators for the state. The data also serve as a valuable tool for monitoring the progress of pollution-prevention efforts and for measuring the effectiveness of pollution-prevention programs underway in Washington State. Under a grant from EPA, Ecology has developed the Toxics Release Inventory Display System (TRIDS), a graphic model for viewing TRI data. This display program is available for downloading (copying) on Ecology's website at <http://www.ecy.wa.gov>.

The Hazardous Chemical Inventory is of value because it tells us what chemicals are stored in our communities. Local emergency planning committees (LEPCs) and local fire departments use the information to prepare for or to respond to a possible accident or incident at or near the reporting facilities.

Additional information on TRI and Tier Two is available on the Community Right-to-Know home page at <http://www.ecy.wa.gov/programs/hwtr/epcra>.

Statewide Summary of Hazardous Chemical Inventory in Washington State, 1999

Nearly 3,000 facilities in the state of Washington report storing one or more hazardous chemicals at reportable levels during 1999. The most commonly reported chemicals were gasoline and diesel fuel. For 1999, gasoline and diesel fuel numbers reported under Hazardous Chemical Inventory reporting requirements have decreased since retail gasoline stations no longer have to report those chemicals. Extremely hazardous substances (EHS) have significantly lower thresholds for reporting because of their acute risk to the public and environment. The most commonly reported EHS was sulfuric acid.

Top Three Extremely Hazardous Substances Reported in Storage

Chemical	Times Reported
1 Sulfuric Acid	691
2 Chlorine	262
3 Ammonia	226

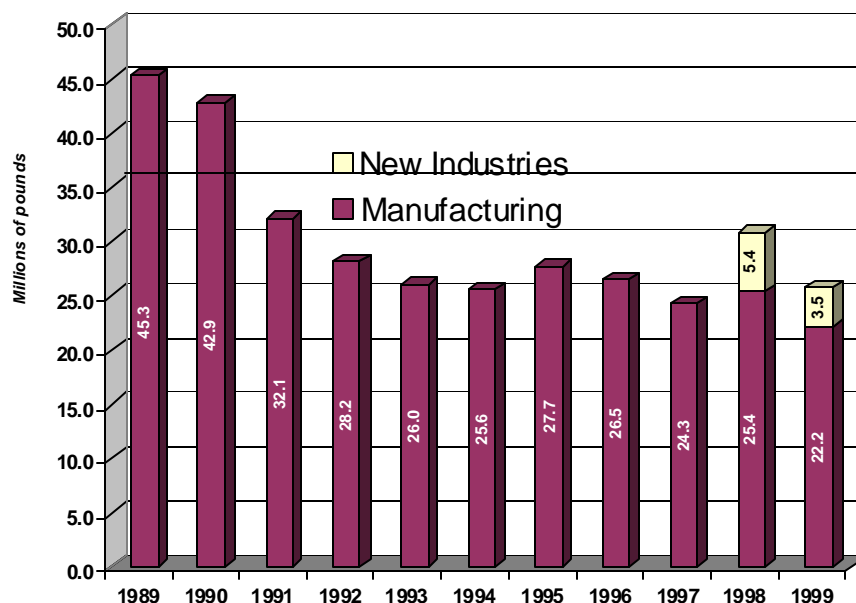
Statewide Summary of TRI in Washington State, 1999

It is important to understand the following limitations when using TRI information:

1. Only annual total pounds are reported. Information regarding rate of release or concentration is not included.
2. The amounts reported may be based on engineering calculations or estimates rather than direct monitoring of releases.
3. Many facilities releasing or transferring toxic chemicals are not required to submit a TRI report because they do not meet the criteria for a reporting facility for industry type, number of employees or chemical use.
4. The TRI does not include toxics introduced into the environment from sources other than industrial facilities, such as pesticide applications, motor vehicles and wood stoves.
5. The toxicity of chemicals listed in the TRI varies dramatically.
6. The TRI does not attempt to detail the risk from individual chemicals or facilities.
7. A release of a TRI toxic chemical usually does not indicate a violation of federal, state or local environmental laws, most TRI releases are regulated under state or federal permit rules.

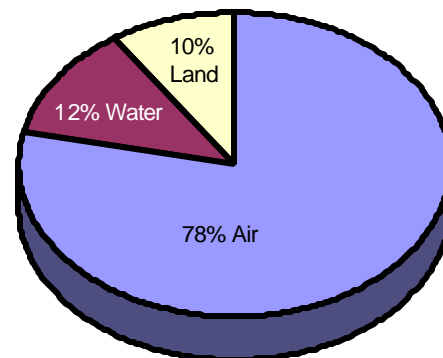
In the 1999 reporting year, 25.7 million pounds of toxic chemicals were reported released to the air, land and water in the state of Washington. This was a decrease of 3.2 million pounds reported releases in 1998.

Total releases of all reported chemicals under TRI have decreased by over 50 percent since 1989. Releases of chemicals with constant reporting requirements have decreased by 30 percent since 1989.



Releases to Air, Water and Land

The relative percentage of releases to land has increased with the addition of the mining and electric utilities industry categories. However, the greatest percentage of releases consistently continues to be to air.



The top industry reporting releases, Paper & Allied Products, decreased their total reported releases by about one million pounds from 1998.

Top Three Industries Reporting Releases

Industry	Releases (millions/pounds)
1 Paper and Allied Products	10.1
2 Primary Metal Industries	4.3
3 Electric Services	3.0

Pacificorp Centralia, in the electric services industry category, was again the facility with the greatest amount of reported releases. Their reported releases decreased by 1.6 million pounds from 1998 primarily due to improved release estimates.

Top Three Facilities Reporting Releases

Facility	Releases (millions/pounds)
1 Pacificorp Centralia Thermal Plant	2.8
2 Weyerhaeuser Co., Longview	2.6
3 Fort James Camas, LLC	1.7

Methanol was the chemical with the highest amount of reported releases, 4.5 million pounds. This is a decrease of 1.1 million pounds from 1998.

Top Three Chemical Releases

Chemical	Releases (millions/pounds)
1 Methanol	4.5
2 Carbonyl Sulfide	2.3
3 Nitrate Compounds	2.1

Releases of carcinogens (known or suspected cancer-causing chemicals as defined by OSHA) were 3.8 million pounds, a decrease of about 200,000 pounds from 1998.

Top Three Carcinogen Releases

Carcinogen		Releases (millions/pounds)
1	Styrene	1.50
2	Acetaldehyde	0.74
3	Chloroform	0.42

Facilities located in Cowlitz County reported a 400,000 million pound decrease from 1998's 4.4 million pounds.

Top Three County Releases

County		Releases (millions/pounds)
1	Cowlitz	3.9
2	Lewis	2.8
3	Clark	2.4

Introduction

Congress enacted the Emergency Planning and Community Right-to-Know Act (EPCRA) into federal law on October 17, 1986. EPCRA helps communities deal safely and effectively with hazardous chemicals. The law includes a number of requirements for businesses and government. It is intended to improve emergency planning for hazardous chemicals at the local level. EPCRA has a number of provisions, but its primary objectives are to:

- Enhance emergency response capabilities for hazardous chemical incidents;
- Expand emergency planning for hazardous chemical incidents;
- Identify the storage, use and release of hazardous chemicals in communities; and
- Promote communication between facilities that handle hazardous chemicals and the local community.

EPCRA contains five sections that deal with the various reporting requirements of businesses. A facility may be subject to one or all of the sections depending on the type of chemicals it has and the quantities of those chemicals. This summary report focuses on two reporting requirements: Tier Two Emergency and Hazardous Chemical Inventory Reporting (Section 312) and Toxic Chemical Release Reporting (Section 313).

Tier Two Hazardous Chemical Inventory Reporting

Any facility in Washington State that stores a certain amount of a hazardous chemical must report this once a year. Under Section 312, the facility must file an Emergency and Hazardous Chemical Inventory (Tier Two) report by March 1st, for any hazardous chemicals present in amounts at or above the threshold level at any time during the previous calendar year. The Tier Two reports are filed with Ecology representing the State Emergency Response Commission (SERC). The reports are also filed with the Local Emergency Planning Committee (LEPC) and local fire department. The information required on the Tier Two reports include facility identification, chemical name, health hazards, codes representing maximum and average amounts on-site, storage and location descriptions. Ecology enters this information into a database for sharing with the public, LEPCs and other interested parties.

In addition, to tracking the hazardous chemicals, Tier Two data includes the number of facilities storing extremely hazardous substances (EHS). Approximately 350 chemical compounds classified as EHS chemicals are listed by the Environmental Protection Agency (EPA).

Tier Two tells us what chemicals are stored in our communities. LEPCs and local fire departments use the information to prepare for or respond to a possible accident or incident at or near the reporting facilities.

Toxics Release Inventory Reporting

Toxic Chemical Release Reporting is tracked through an annual summary called the Toxics Release Inventory (TRI). The TRI tracks the amount of toxic chemicals released into the air, land and water by certain facilities. Over 600 chemical compounds and/or chemical categories listed under Section 313 of EPCRA are reported under the TRI.

TRI reports are filed every year with EPA and the Department of Ecology. Forms submitted by facilities are due on July 1st, for the preceding calendar year's releases. For 1999 reporting, the due date for filing was July 1, 2000. After completing data entry and data quality checks, EPA and Ecology compile a TRI database. Each agency publishes an annual summary report. EPA reports from a national perspective, while Ecology focuses on Washington State.

Ecology uses TRI data as one of several environmental indicators for the state. The data also serve as a valuable tool for monitoring the progress of pollution-prevention efforts and for measuring the effectiveness of pollution-prevention programs underway in Washington. Under a grant from EPA, Ecology has developed the Toxics Release Inventory Display System (TRIDS), a graphic model for viewing TRI data. This display program is available for downloading (copying) on Ecology's website at <http://www.ecy.wa.gov>.

Chemical Inventory Reporting – Tier Two

Tier Two reporting is this country's response to a December 3, 1984 incident in Bhopal, India. Thousands of people were killed because of an industrial accident that sent a deadly cloud of toxic gas over the city. In 1986, in order to help facilities and communities in the United States prevent such a catastrophe from happening, Congress passed the Emergency Planning and Community Right-to-Know Act (EPCRA). EPCRA is also known as Title III of the Superfund Amendments and Reauthorization Act (SARA Title III).

Washington Administrative Code Chapter 118-40 was adopted in 1987. This regulation established Washington's State Emergency Response Commission (SERC), the 47 Local Emergency Planning Committees (LEPCs), and adopted the federal Community Right-to-Know reporting thresholds and requirements. The SERC's goal is to assemble and disseminate information that will help the citizens, government, and industry be better prepared for emergency response. Facilities that are required to report their stored chemicals send copies of the chemical inventories to the SERC, the local fire department, and the LEPC. LEPCs use the information to prepare for a possible accident at or near each reporting facility. Ecology is designated by WAC Chapter 118-40 to receive EPCRA reports for the SERC.

Facilities covered under the federal Community Right-to-Know laws are required by Section 312 of EPCRA to submit a Tier Two report each March 1st. This report is an inventory of the hazardous substances or chemicals stored on-site during the previous year. Businesses are required to report their inventories if quantities of hazardous substances exceed the federal reporting thresholds. Reporting thresholds are 10,000 pounds of a hazardous substance at any one time, and 500 pounds or less of an EHS depending on the chemical. The report lists maximum quantities, average quantities, number of days on-site, storage methods and storage locations for hazardous chemicals and extremely hazardous substances.

Tier Two Reporting Facilities

The data summarized in this report was received in 2000 and covers calendar year 1999. Figure 1 on page 8, shows that 2,976 facilities stored hazardous chemicals during 1999. The number of facilities reporting increased annually through the 1998 reporting year. This trend in increases was due to outreach efforts and increased awareness of reporting requirements. Beginning with the 1998 reporting year, most retail gas stations no longer had to report because of higher reporting thresholds for gasoline and diesel. While many of these gas stations reported anyway in 1998, we see a significant decrease from this sector in the 1999 reports. Other facilities may also become inactive when they reduce their inventories below reporting thresholds.

Figure 1: Number of Tier Two Reporting Facilities

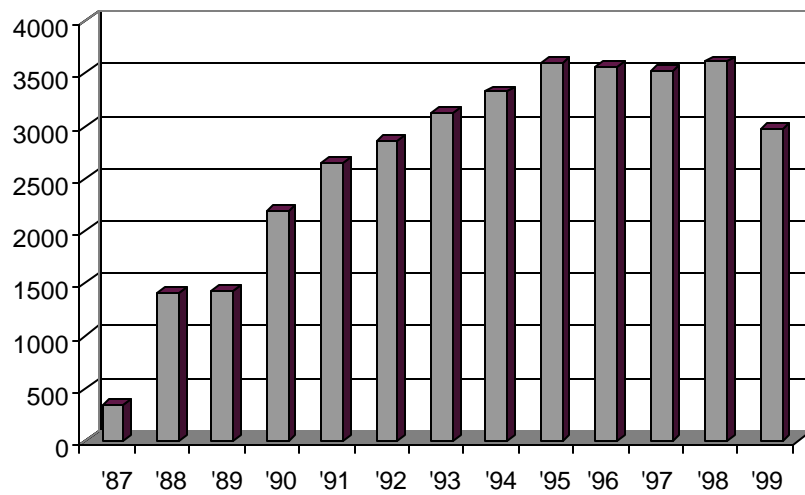
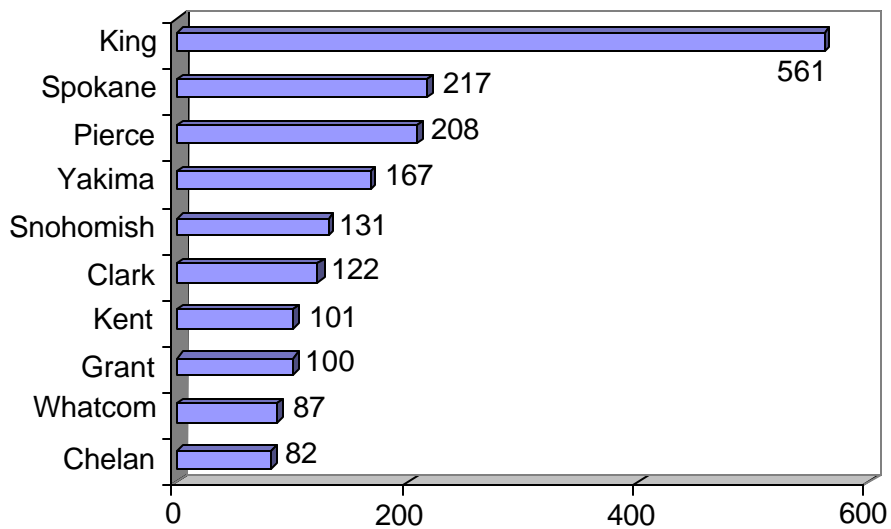


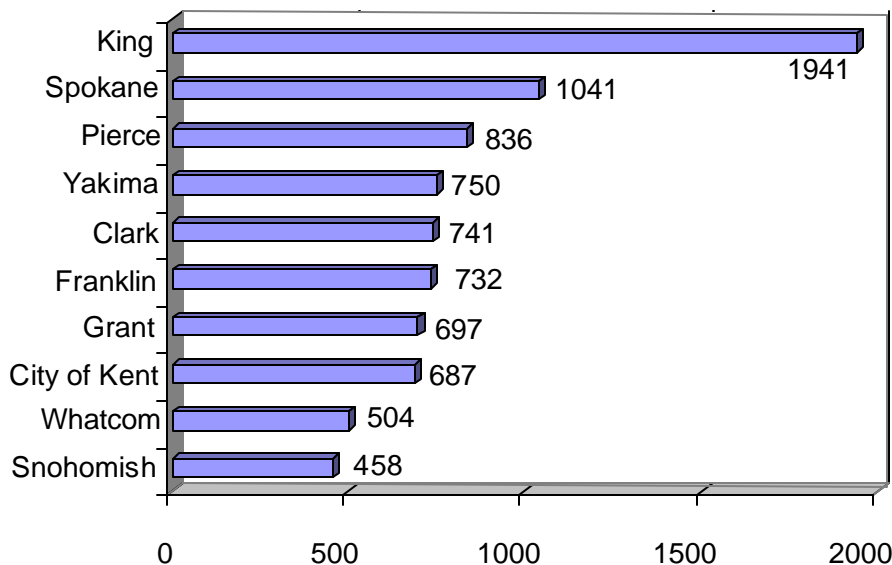
Figure 2: Top Ten LEPCs with Most Reporting Facilities



Reports by LEPC

There are 47 LEPCs in Washington State. Most of these share the same jurisdictional area as counties, but a few cities serve as their own LEPC. Figure 2 on page 8, displays the top ten LEPCs in terms of the most facilities within their jurisdiction that filed reports for reporting year 1999. Figure 3 below, is similar, but shows the top ten LEPCs in terms of the numbers of total chemicals reported as being stored on-site.

Figure 3: Top Ten LEPCs with Most Chemicals Reported



Most Frequently Reported Chemicals

The ten most frequently reported chemicals are displayed in Figure 4 on page 10. As a sub-set of these hazardous chemicals, Figure 5 also on page 10, displays the ten most frequently reported extremely hazardous substances (EHS). EHSs present a higher risk to the public and the environment, and therefore have much lower reporting thresholds. The value of making information on these chemicals available becomes apparent when one thinks of the risks faced by employees and emergency responders.

Figure 4: Top Ten Most Frequently Reported Chemicals

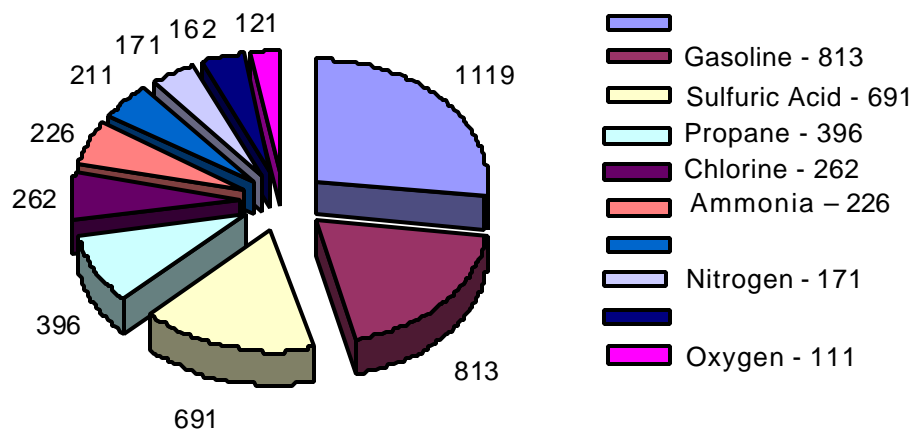
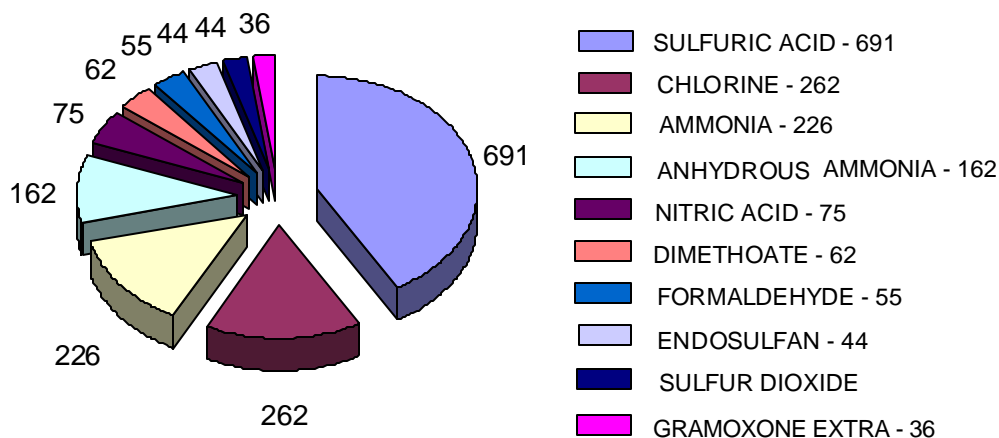


Figure 5: Top Ten Most Frequently Reported EHS Chemicals



Appendix 2 on page 39, contains a complete listing of the number of reporting facilities and the number of chemicals reported. Further information on Tier Two reporting requirements can be found at <http://www.ecy.wa.gov/programs/hwtr/epcra/index.html>.

The Toxics Release Inventory

The Toxics Release Inventory (TRI) is an annual summary that tracks the amount of toxic chemicals released or transferred by certain types of facilities. Facilities in specific industry categories (Appendix 1, page 35) that meet reporting thresholds for numbers of employees and chemical use must comply with TRI reporting requirements. A separate form is required for each chemical which meets reporting thresholds. A facility may file one form or many forms depending on its chemical use. The five-page Form R chemical report is required for most reports. Facilities that produce less than 500 pounds of “total waste” (see Appendix 1) are permitted to use the abbreviated Certification Form A. Appendix 4 on page 45, lists Form A reporters in Washington State for 1999.

TRI Data Limitations

It is important to remember that a release of a TRI toxic chemical does not indicate a violation of federal, state or local environmental laws. These facilities operate under environmental regulatory permits. TRI information includes data on permitted releases and transfers of certain chemicals. It does not indicate the rate or concentration of chemicals released, nor can it demonstrate the geographic boundaries of the chemical release. Therefore, exposures or risks to the public cannot be determined by using TRI data alone.

Another limitation under the TRI regulations is that facilities may report data based upon estimates and calculations rather than actual, measured pounds of toxic chemicals. Therefore, the information collected may reflect only general trends. Facilities may submit voluntary revisions of the report forms for any prior year. Sometimes the standards and methods for estimating releases change. Thus, the TRI data is somewhat variable and can change after this report is published. However, the revisions and changes will result in a more accurate database over time.

Additionally, reporting errors can limit the usefulness of the TRI data. Facilities must file their TRI Reports with both EPA and their respective state. In some cases, one agency but not the other may receive reports. Facilities that report under the TRI may file revised Form Rs if they discover or decide that a previously submitted form needs correction. This may occur multiple times for one facility’s forms for one chemical. These revisions also may change state release values for a previous year. For example, if a revision for 1997 increased one facility’s releases by 500,000 pounds, the state total would also increase by 500,000 pounds.

Finally, changes in TRI reporting requirements also modify our ability to make year to year comparisons. These changes are summarized in Appendix 1. Because reporting requirements were relatively constant for years 1995 through 1997, it was possible to make direct comparisons over those years without “normalizing” or adjusting the data for changes. For the 1998 and 1999 reporting years, the new industry reports must be removed to make direct comparisons to 1995 through 1997 data. To make direct comparisons to years prior to 1995, it is necessary to adjust for other changes in reporting requirements. The normalization of data may include removing all chemicals added over the reporting years, all chemicals deleted from the list of chemicals and chemicals like ammonia, hydrochloric acid and sulfuric acid that have had significant changes in the way they are reported. For overall trend analysis in this report, we have not normalized the data in order to capture changes that were implemented under TRI. The most reliable trend analysis may be for a single chemical at a particular facility.

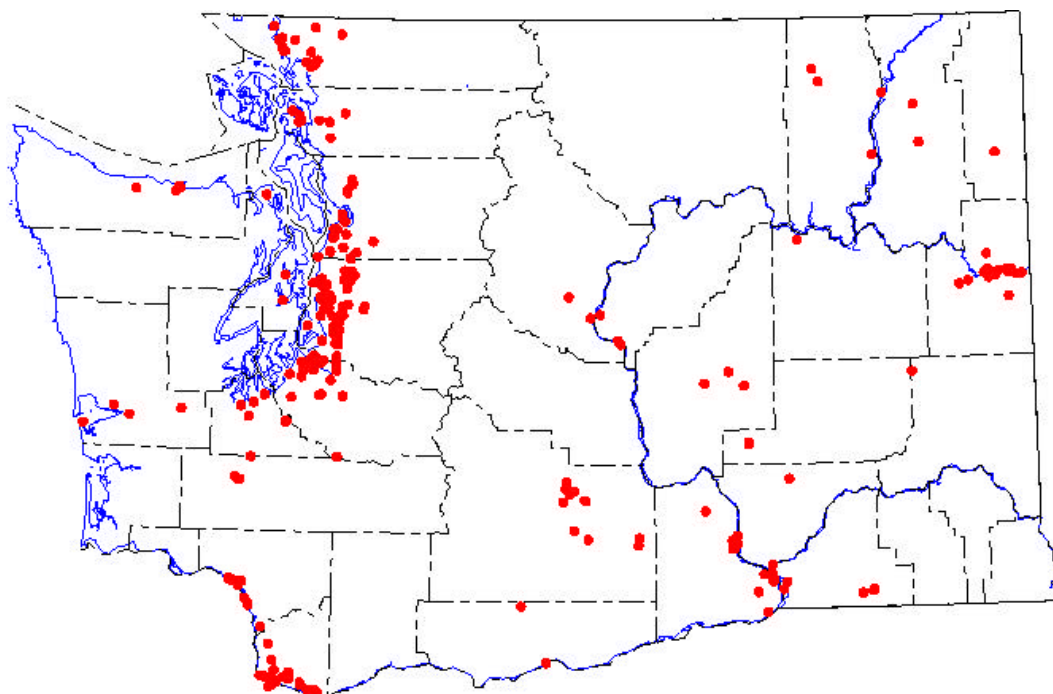
In spite of these limitations, the TRI data continues to be useful for addressing potential risks to a community when evaluated together with other information. The TRI information is collected and analyzed according to political boundaries such as states and counties. Of course, natural earth processes cross over such artificial boundaries. Surface water movement and weather patterns affect the impact chemical releases have on the soil, water and air. The way the winds blow and waters flow will influence the impact of chemicals on the environment independent of political boundaries.

Still, looking at releases by area and population helps to establish points of reference and gives a starting point to better characterize the impact of these releases. The points of reference cannot, however, be used to directly assess exposure and environmental risk. The question of determining the risk associated with a chemical release is a complex process that falls beyond the scope of this report. Some relative risk-based rankings of TRI chemicals have been developed and are available. However, to determine the risk of a particular chemical in a specific situation requires a process called risk assessment. The EPA has developed tools to help communities deal with local environmental problems including chemical risk assessments. These tools are available by contacting EPA.

TRI Releases by Environmental Media

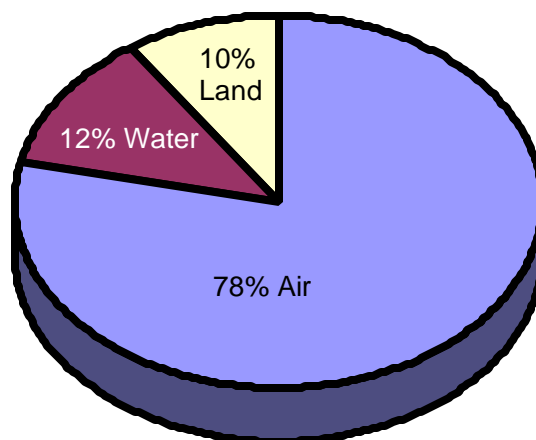
As of December 2000, 297 facilities in Washington State had reported under TRI reporting requirements for 1999 (Form R, Form A or both). This is a decrease of 15 from 1998. Of these, 251 facilities filed one or more five-page Toxic Release Inventory Report Form Rs (see Appendix 5, page 49). Seventy-seven filed one or more two-page TRI Certification Form As (see Appendix 4, page 45). Twenty-five of these 297 reporting facilities had not reported for the previous calendar year. Figure 6 on page 13 shows the location of reporting facilities throughout Washington State.

Figure 6: Washington State TRI Reporters, 1999



For the 1999 reporting year, the facilities reported a total of 25,740,536 pounds of toxic chemicals released to air, water and land (see Figure 7, below). Air releases comprised 78.4 percent of all releases (20,178,440 pounds). Water releases made up 12.0 percent (3,100,145 pounds) and land releases accounted for 9.6 percent (2,461,951 pounds) of releases. No underground injection releases were reported.

Figure 7: Washington State TRI by Environmental Media, All Industries, 1999

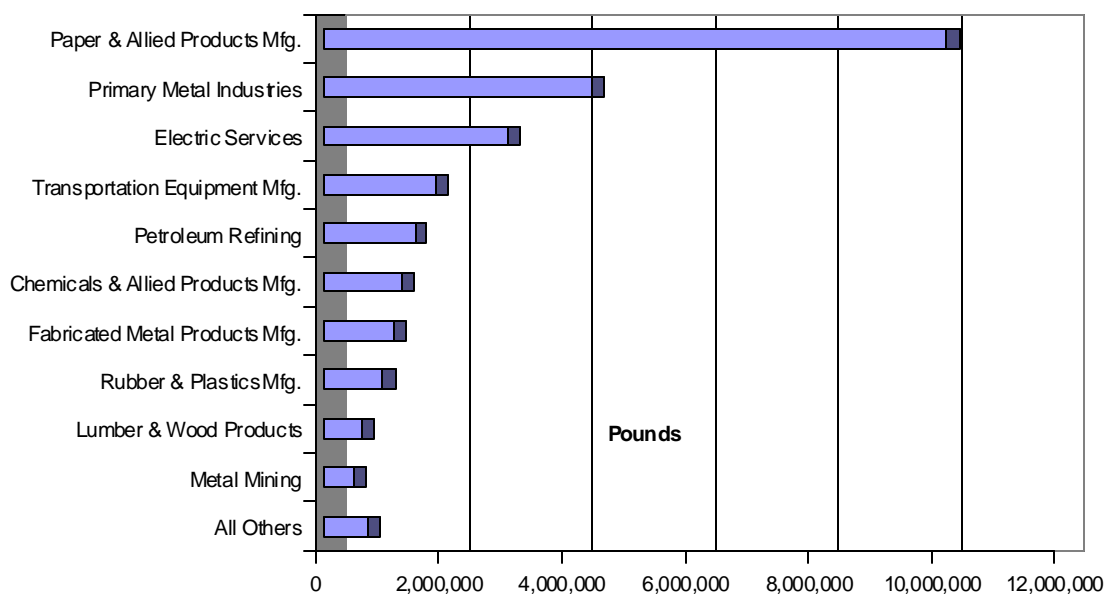


TRI Releases by Industry Category

Four of the industry categories required to report under the TRI were responsible for almost three-fourths of the releases in the state (see Figure 8 below). The paper and allied products manufacturing category reported the largest share of releases, 10.1 million pounds. This amount comprised about 39 percent of the releases reported in the state and was a decrease of 0.9 million pounds from 1998. Primary metal industries were second with 4.3 million pounds reported (17 percent). This is a decrease of 1.6 million pounds from 1998. Ranked third was electric services, 3.0 million pounds (11.6 percent). The 1998 reporting year was the first year of reporting for the electric services industry category. It includes only facilities that burn coal or oil to produce electricity commercially. The 1999 reported releases decreased by 1.5 million pounds from 1998. Transportation equipment manufacturing was ranked fourth with 1.98 million pounds (6.9 percent). This is about the same amount as reported in 1998.

The ten highest industry categories (Figure 8) reported 97.3 percent of the state's total releases. All other classifications combined reported releases of about 687,000 pounds or 2.7 percent of the Washington State total.

Figure 8: Washington State TRI by Industry, 1999



Paper & Allied Products

With over ten million pounds of reported releases, the paper and allied products manufacturing category accounted for nearly forty percent of the releases reported in the state. Fourteen different facilities reported in this category in 1999. The amount of releases in this industry category decreased from 1998 by nearly one million pounds. This continues a trend of decreases since 1995.

Major chemicals reported by this industry include methanol, hydrochloric acid, ammonia, and nitrate compounds.

Primary Metal Products

The primary metal products industry was the second highest category for amount of chemicals released. The 24 facilities reporting in this category acknowledged releases of about 4.3 million pounds. This is a decrease of 1.6 million pounds from 1998 but still higher than the 3.6 million pounds reported in 1997.

The major chemicals reported by this industry were carbonyl sulfide, hydrogen fluoride and hydrochloric acid. The decreases in this industry category represent decreases in releases of hydrogen fluoride at Kaiser Mead Works of 1.6 million pounds.

Electric Services-Burning Coal or Oil for Commercial Electricity Generation

The electric services industry reported the third highest amount of TRI chemicals released in 1999, a total of 3.0 million pounds. Eight facilities reported in this industry category. One facility, the PacifiCorp Centralia Thermal Plant reported releases of 2.8 million pounds. These releases are primarily hydrogen fluoride, sulfuric acid and hydrochloric acid releases to air and barium, manganese and nickel compound releases to land.

Transportation Equipment Manufacturing

The transportation equipment manufacturing industry reported releases of 1.8 million pounds. This is a decrease of about 100,000 pounds from 1998. There were thirty-one facilities reporting in this category. Major chemicals reported by this industry are methyl ethyl ketone, styrene and toluene. The seven Boeing facilities reported 870,000 pounds in 1999. This is a decrease of about 125,000 pounds from 1998.

Top Reporting Facilities-Releases

For the 1999-reporting year, the top twenty reporting facilities for total releases on-site are listed in Table 1 on page 16. PacifiCorp Centralia Thermal Plant was the facility reporting the highest total releases of 2.8 million pounds. The second highest releases were reported by Weyerhaeuser Co., Longview, 2.6 million pounds. The third highest reporting facility for total releases was Fort James Camas LLC. in Clark County, 1.7 million pounds. Six of the top ten ranked facilities are in the paper and allied products manufacturing category.

The top twenty reporting facilities for releases represent 18.7 million pounds of the state's 25.7 million pound total. This is about 73 percent.

Table 1: Washington State TRI Releases Top 20 Reporting Facilities, 1999

Facility	City	County	Air	Water	Land	Total	POTW	Transfers	Total Transfers	98 Releases	98 Transfers
Centralia Power Plant	Centralia	Lewis	1,029,089	627	1,783,348	2,813,064	0	48,819	48,819	4,465,627	88,071
Weyerhaeuser Company	Longview	Cowlitz	2,533,753	107,263	0	2,641,016	0	130,574	130,574	3,227,013	169,321
Fort James Camas Llc	Camas	Clark	1,147,405	531,060	2,825	1,681,290	0	66,900	66,900	1,659,780	8,300
Boise Cascade Paper Division	Walla Walla	Walla Walla	1,453,764	130,907	15,622	1,600,293	0	11	11	1,360,834	7
Kaiser Aluminum & Chemical	Mead	Spokane	911,255	290	255	911,800	0	10,750	10,750	2,483,823	17,865
Simpson Tacoma Kraft Co.	Tacoma	Pierce	818,477	89,101	0	907,578	0	103	103	1,071,409	84
Longview Fibre Company	Longview	Cowlitz	604,725	142,160	0	746,885	0	180,400	180,400	594,575	171,600
Prodicta Llc Kennewick Plant	Kennewick	Benton	654,455	15,605	57,905	727,965	0	344,400	344,400	981,020	538,826
Kimberly-Clark Tissue Company	Everett	Snohomish	165,504	553,330	0	718,834	0	173,350	173,350	736,480	74,800
Alcoa Wenatchee Works	Malaga	Chelan	695,534	0	0	695,534	0	21,134	21,134	678,815	14,006
Intalco Aluminum Corporation	Ferndale	Whatcom	615,177	0	40	615,217	0	5,000	5,000	610,471	0
Georgia-Pacific West, Inc.	Bellingham	Whatcom	241,908	366,396	0	608,304	0	37,818	37,818	911,818	3,953
Boeing Commercial Airplane	Everett	Snohomish	587,961	541	0	588,502	127,139	417,504	544,643	722,206	894,798
Tesoro Northwest Company	Anacortes	Skagit	536,731	2,554	770	540,055	0	4,320	4,320	327,503	39,854
Vanalco Inc.	Vancouver	Clark	516,174	0	14,560	530,734	0	192,484	192,484	544,135	11,580
Sandvik Special Metals Corp.	Kennewick	Benton	170	525,516	0	525,686	0	0	0	560,090	0
Lasco Bathware Inc	Yelm	Thurston	498,104	0	0	498,104	0	250	250	485,996	250
Kettle River Operations Mill	Republic	Ferry	47	0	478,415	478,462	0	17	17	574,055	27
Port Townsend Paper Corp	Port Townsend	Jefferson	409,900	14,230	53,500	477,630	0	0	0	429,100	0
Arco Cherry Point Refinery	Blaine	Whatcom	367,594	36,453	35	404,082	0	40,146	40,146	453,690	60,542

Facilities Showing Changes in Total Releases in 1999 from 1998

The facility showing the greatest decrease from 1998 to 1999 was the Centralia Power Plant in Lewis County, showing a 1.65 million-pound decrease. This decrease reflects an improvement in the process of determining the amount of releases and the fact that the facility burned eight percent less coal in 1999 than in 1998. The company with the second highest decrease was Kaiser Aluminum & Chemical Corp in Mead, Spokane County, down 1.57 million pounds. Kaiser Aluminum & Chemical Corp. had shown the greatest increase in TRI releases from 1997 to 1998 — primarily hydrogen fluoride. The decrease shown in 1999 reflects their efforts to correct the problems from the previous years.

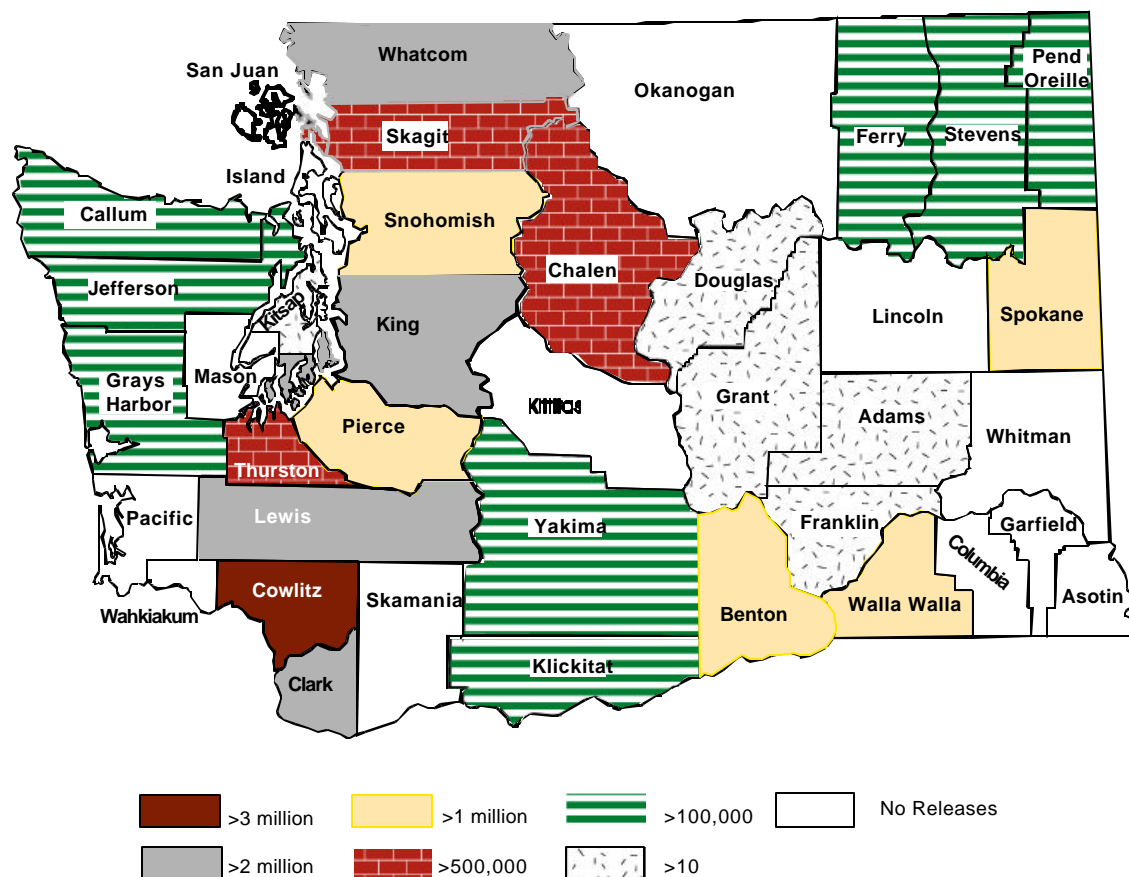
Seven other facilities also reported decreases of over 100,000 pounds: Weyerhaeuser Company, Longview; Georgia-Pacific West, Inc., Bellingham; Prodicta LLC Kennewick Plant, Puget Sound Refining Co., Anacortes, Simpson Tacoma Kraft, Tacoma; Boeing Commercial Airplane Group, Everett and Weyerhaeuser Pulp Mill in Cosmopolis. One hundred twelve of the state's 251 reporting facilities reported decreases for 1999 compared to 1998.

The facility showing the greatest increase in total pounds released from 1998 to 1999 was Boise Cascade in Walla Walla County. They reported an increase of 239,000 pounds. This increase in hydrochloric acid releases reflects the use of new emission factors to calculate their releases. The use of these emission factors more accurately estimates the releases. It may or may not indicate an actual increase in the amount of hydrochloric acid released. The second highest increase in total pounds was Tesoro Northwest Company in Skagit County (212,000 pounds). Longview Fibre Company also reported an increase of more than 100,000 pounds for 1999 compared to 1998. Seventy-five of the state's 251 reporting facilities show increases in reported releases from 1998 to 1999.

TRI Releases by County

Of Washington's 39 counties, 26 had facilities that reported under TRI (see Appendix 5, page 49). Reporters in Cowlitz County acknowledged releases that totaled over three million pounds within the county (see Figure 9, page 18). Four counties (Lewis, Clark, Whatcom and King), had over two million pounds of reported releases and five other counties (Pierce, Walla Walla, Spokane, Snohomish and Benton) each totaled between one and two million pounds released per county. The releases in these ten counties accounted for eight percent of all TRI releases statewide.

Figure 9: Washington State TRI by County, 1999



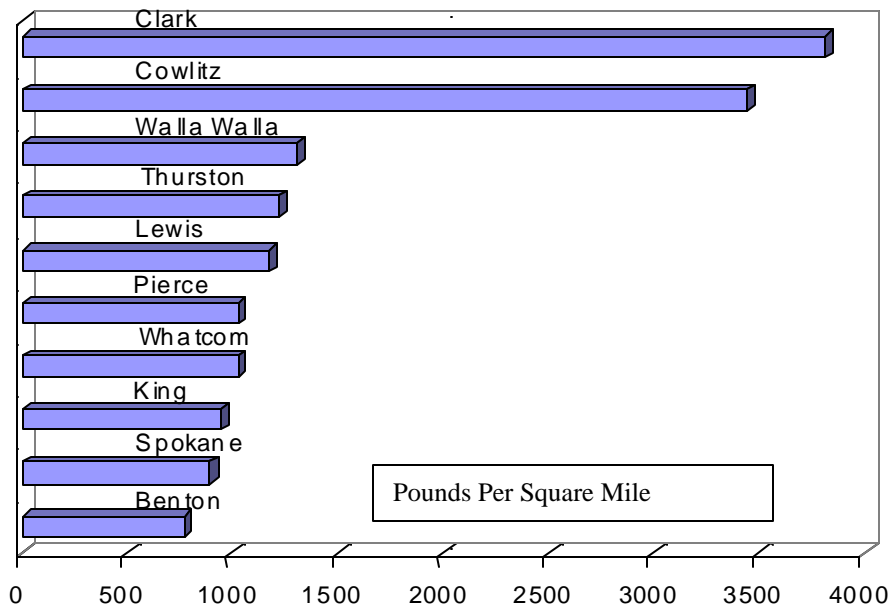
Cowlitz County reported the largest amount of chemicals released in the state in 1999. The 3.9 million pounds accounted for 15 percent of the state total. Nine facilities reported in Cowlitz County including Weyerhaeuser Company (2.6 million pounds) and Longview Fibre Company (747,000 pounds). Lewis County ranked second with 2.8 million pounds, nearly all of it from the Centralia Power Plant. Clark County ranked third with 2.3 million pounds.

Counties Ranked-Pounds per Square Mile

County rankings relating TRI releases per square mile appear in Figure 10 on page 19. A county may rank higher on releases per area, but lower on the overall county rankings because of its relatively smaller size, even though its releases were also a relatively small number.

Clark County ranked first with 3,812 pounds per square mile. Cowlitz County has a relatively small area and ranked first in the counties in total releases. These two factors give it a high number for pounds per area. Cowlitz County ranked second with 3,448 pounds per square mile. Walla Walla County was third with 2,304 pounds per square mile. Thurston, Lewis and Pierce counties placed fourth, fifth and sixth respectively. Statewide releases averaged 387 pounds per square mile, down from 460 pounds per square mile in 1998.

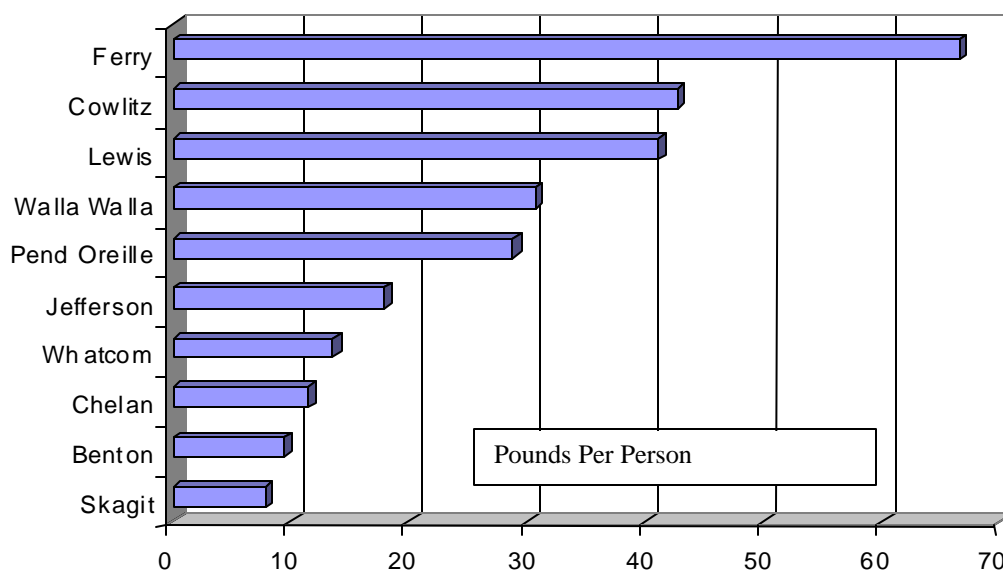
Figure 10: Washington TRI Top Counties, Pounds per Square Mile, 1999



Counties Ranked-Pounds by Population

Ferry County was first for TRI releases ranked by estimated 1999 population in pounds per person, 66.6 pounds per person (see Figure 11, page 19). Cowlitz County reported 42.7 pounds of chemical releases per person. Lewis County reported 41.1 pounds per person. Walla Walla, Pend Oreille and Jefferson counties ranked fourth through sixth with 30.8, 28.8 and 17.9 pounds per person reported respectively. Statewide, releases averaged 4.5 pounds per person. This does not mean that each person was exposed to these “pounds” of chemicals.

Figure 11: Washington TRI Top Counties, Pounds per Person, 1999



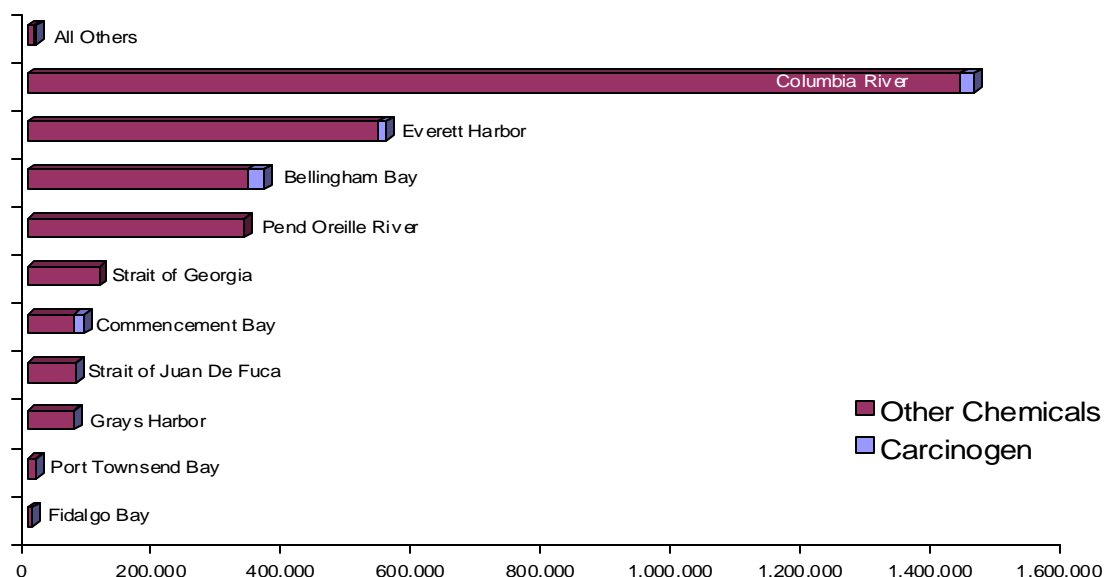
Counties that appear high on this list often have fairly high release amounts and average populations (Lewis) or moderate releases with very small populations (Ferry). Counties like King and Pierce counties, with very large populations, do not show up in the ranking of top ten counties even though they had high total release amounts.

TRI Releases by Water Body

Releases of TRI chemicals to water in Washington State have ranked high nationally both in total chemicals and in releases of known or suspected cancer causing chemicals. One report ranked the state number one for releases of carcinogens from 1989 to 1996. Water releases in the state were 3.1 million pounds in 1999. This is a decrease of about 400,000 pounds from 1998. Chemicals classified by the Occupational Health and Safety Administration (OSHA) as known or suspected carcinogens totaled 82,000 pounds of the water releases, decreasing by one third from 1998.

The Columbia River was reported as receiving the highest amount of water releases, both carcinogens and other chemicals (1.5 million pounds). The water body with the second highest reported releases of both carcinogens and total chemicals was Everett Harbor. Figure 12 below shows water releases by water body.

Figure 12: Washington State TRI by Water Body, 1999

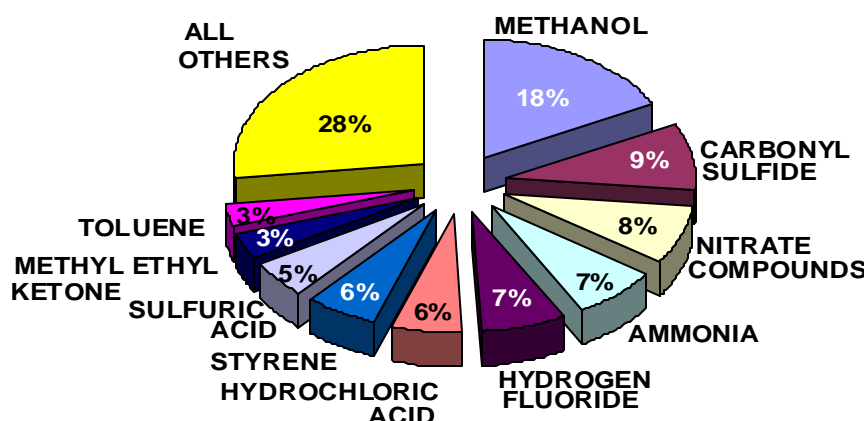


TRI Releases by Chemical

Only 97 of the approximately 600 chemicals or chemical categories reported under TRI, were reported by one or more facilities in Washington State (see Appendix 3 on page 41).

The top ten chemicals in amount of releases cover 73 percent of all chemical releases reported in the state (Figure 13, page 21). In descending order, the top five chemicals reported were methanol, carbonyl sulfide, nitrate compounds, ammonia and hydrogen fluoride.

Figure 13: Washington State TRI by Chemical, 1999



Methanol

Methanol is generated through chemical reactions and occurs naturally in the breakdown of wood fibers. The pulping process releases this chemical from the wood fibers. The primary reporters of methanol operate in the paper and allied products industry category. Methanol is a flammable solvent and was the most reported chemical for 1999. Methanol releases in 1999 were 4.5 million pounds, 1.1 million pounds less than in 1998. Thirty-three facilities reported releases of methanol in 1999. Weyerhaeuser Inc., Longview, reported 1.4 million pounds. Fort James Camas LLC reported 1.1 million pounds and three other facilities reported more than 200,000 pounds of releases: Simpson Tacoma Kraft, Boise Cascade Paper Division, Wallula and Longview Fibre Company.

Carbonyl Sulfide

Carbonyl sulfide was the second most reported chemical in 1999. Carbonyl sulfide is a by-product of the aluminum manufacturing process. A total of 2.3 million pounds was reported released to the environment by the eight facilities reporting this chemical. This 2.3 million pounds is an increase of about 200,000 pounds from 1998. Six of these facilities are in the primary metal products industry category. Alcoa Wenatchee Works in Malaga reported 594,000 pounds. Intalco Aluminum in Ferndale reported 526,000 pounds. Kaiser Mead Works reported 495,000 pounds, and Vanalco Inc. in Vancouver reported 410,000 pounds.

Nitrate Compounds

Nitrate compounds were the third highest reported chemical in 1999. The nitrate compound category was added to TRI reportable chemicals for the 1996-reporting year. Nitrate compounds are used in fertilizers, as oxidizing agents and in explosives. Nitrate compounds have harmful effects on health and the environment. A high nitrate concentration in lakes and streams results in excess nitrogen. This excess nitrogen results in uncontrolled plant growth as in algal blooms. This process called eutrophication can result in a deterioration of water quality.

Reported releases of nitrate compounds were 2.1 million pounds for 1999. Reported releases were 2.0 million pounds in 1998. Most nitrate compound releases are to water. Sandvik Special Metals Corp. in Kennewick reported 525,000 pounds of nitrate compound releases — about the same as in 1998. Other companies with more than 100,000 pounds of reported releases were: Kimberly Clark Corp. in Everett, Ponderay Newsprint Co. in Usk, Georgia Pacific West in Bellingham, Kettle River Operations in Republic, Longview Fibre Co. in Longview and Daishowa America Co. LTD in Port Angeles.

Ammonia

Ammonia was the fourth highest reported chemical in 1999. Reported releases of ammonia totaled 1.9 million pounds. In 1998, ammonia releases totaled 2.3 million pounds. Ammonia is widely used as a fertilizer, a refrigerant and as a wastewater treatment nutrient addition.

EPA added a qualifier to the reporting of ammonia under TRI in 1994. The qualifier for ammonia means that anhydrous forms of ammonia are 100 percent reportable; but solutions of ammonia and water are limited to ten percent of total aqueous ammonia. In past years, aqueous forms of ammonia were 100 percent reportable. For this reason, reported releases for ammonia for years prior to 1995 (when ammonia was the number one reportable chemical in the state) are not comparable to the 1995 and following years' values.

Ammonia was reported by 41 facilities in 1999. The Prodicta LLC. Kennewick plant reported about 656,000 pounds of ammonia releases to the environment, about one-third of the state total. Other facilities reporting over 100,000 pounds of ammonia releases were Boise Cascade Paper Division in Wallula, Georgia Pacific-West in Bellingham, Fort James Camas LLC. in Camas, Weyerhaeuser Company in Longview and Simpson Tacoma Kraft in Tacoma.

Hydrogen Fluoride

Hydrogen fluoride acid is the fifth chemical on the list of most released TRI chemicals in Washington State in 1999. Releases of this chemical decreased by 1.7 million pounds from 1998 to 1.9 million pounds.

Twenty facilities reported releases of hydrogen fluoride for 1999. Seven of the top eight facilities reporting the highest amounts released are in the primary metal products category. The Centralia Power Plant had the highest amount of reported releases, 599,000 pounds. Three other facilities reported more than 100,000 pounds of hydrogen fluoride releases: Kaiser Aluminum & Chemical Co. in Mead, Reynolds Metals in Longview, and Vanalco Inc. in Vancouver.

Carcinogens

Reported releases of carcinogens (noted in Appendix 3 on page 41) were 3.8 million pounds in Washington State in 1999. One hundred nineteen facilities reported releases of one or more pounds of known or suspected carcinogens. Of these, 656,000 pounds were reported released by Weyerhaeuser Company, Longview. Lasco Bathware Inc., Yelm, reported releasing 498,000 pounds. These compounds which are listed as known or suspected cancer-causing agents by OSHA were reported at 4.0 million pounds in 1998, 3.2 million pounds in 1997, and 3.4 million pounds in 1996. The top chemicals were styrene (1.5 million pounds), acetaldehyde (736,000 pounds), chloroform (415,000 pounds), and lead compounds (257,000 pounds).

TRI Off-site Transfers, 1999

Transfers reported under the TRI include those chemicals transferred to publicly owned treatment works (POTWs), and those chemicals transferred to a facility located geographically or physically separate from the reporting facility. These transfers may be for treatment, energy recovery, recycling or disposal. Transfers are not included in on-site release totals. Total transfers for 1999 were 20.0 million pounds. This represents a decrease of 1.5 million pounds from 1998. Table 2 on page 24 shows the top twenty facilities reporting off-site transfers for 1999.

Table 2: Washington State TRI Transfers Top 20 Reporting Facilities, 1999

Name	City	County	POTW	Disposal	Energy Recovery	Recycling	Treatment	Total
Birmingham Steel Corp.	Seattle	King				4,763,366		4,763,366
BCAG Fabrication Division	Auburn	King	330,061	121,290	11,857	1,073,267	139,069	1,675,544
Reynolds Metals Co.	Longview	Cowlitz		1,207,982		17,285	2,821	1,228,088
SEH-America Inc.	Vancouver	Clark	1,070,010				5,360	1,075,370
Kaiser Aluminum & Chemical Corp	Spokane	Spokane		1,186	114,248	790,428		905,862
Siemens Power Corp	Richland	Benton	627,250	1,080			21,200	649,530
Boeing Commercial Airplane Gro	Everett	Snohomish	127,139	62,557	116,652	133,216	105,079	544,643
TTM Technologies Redmond Div	Redmond	King	255			521,543		521,798
Scott Galvanizing	Seattle	King		150		438,150		438,300
Toray Composites (America)	Tacoma	Pierce			98,000	312,500		410,500
Darigold-Sunnyside	Sunnyside	Yakima	392,905					392,905
Honeywell Electronic Materials	Spokane	Spokane	90,130		2,300	284,400		376,830
Ace Galvanizing Inc.	Seattle	King		60		353,280		353,340
Prodicta LLC Kennewick Plant	Kennewick	Benton		344,400				344,400
Burlington Environmental Inc.	Seattle	King		168	52	276,153	60,324	336,697
BCAG Fabrication Division	Puyallup	Pierce	14	5,560	2,360	185,620	140,871	334,425
Nelson Irrigation Corp.	Walla Walla	Walla Walla		440		325,415		325,855
TTM Technologies	Burlington	Skagit	250			317,734		317,984
Burlington Environmental Inc.	Kent	King	750	146,320		148,845		295,915
BF Goodrich Kalama, Inc.	Kalama	Cowlitz		29,519		204,329	5,251	239,099

Transfers to Publicly Owned Treatment Works (POTW)

In 1998, transfers to publicly owned treatment works (POTW) were 3.0 million pounds, a reported decrease of 0.2 million pounds. Nitrate compounds continue to be the most reported chemical transferred to POTWs. SEH America in Vancouver reported POTW transfers of 1.1 million pounds of nitrate compounds, about the same amount that they reported in 1998. Three other companies reported POTW transfers of over 300,000 pounds of nitrate compounds: Siemens Power in Richland (627,000 pounds); Darigold Inc. in Sunnyside (392,000 pounds); and Boeing Fabrication Division in Auburn (330,000 pounds). These four chemical reports account for 80 percent of POTW transfers.

Chemicals sent to the sanitary sewer may be treated there by a variety of methods. Chemicals not removed in these processes typically are discharged into surface waters. POTWs typically treat incoming chemicals with bacteria. Biological processes may reduce the quantities of chemicals into less toxic compounds before they eventually enter surface water. It is difficult to determine how much of a chemical in the surface water is from a reporting facility. Effluent limits from POTWs are monitored and regulated by permits issued by Ecology. In turn, industrial discharges into sewers are regulated and permitted by the local POTW.

Transfers to Other Off-site Locations

Chemicals reported as transferred to other locations for treatment, storage, disposal, recycling or energy recovery were 17.0 million pounds in 1999 for all reporting facilities. This represents a decrease of 1.8 million pounds from 1998. Facilities reporting the highest amount being transferred off-site were: Birmingham Steel Corp in Seattle, sending 4.8 million pounds to off-site recycling; Boeing Commercial Airplane Group in Auburn, sending 1.1 million pounds to off-site recycling, 121,000 pounds to disposal, and 139,000 pounds to off-site treatment; and Reynolds Metals in Longview, sending 1.2 million pounds to off-site disposal.

Table 3 Pollution Prevention Act Reporting, 1999

	1998	1999	2000 (Projected)	2001 (Projected)
Released	36,742,958	28,757,685	32,153,081	31,581,399
Energy recovery on-site	15,874,943	15,687,044	15,368,990	15,388,990
Energy recovery off-site	843,820	668,240	711,186	763,948
Recycling on-site	48,861,943	39,682,138	37,697,748	41,959,795
Recycling off-site	6,392,934	13,421,395	13,201,046	13,515,976
Treatment on-site	75,889,486	65,824,043	67,291,066	68,133,699
Treatment off-site	4,047,780	4,088,320	4,620,203	5,073,548
Total Waste	188,655,862	168,130,864	171,043,320	176,417,355
One-Time Release		71,849		

Total waste processed or disposed by a facility is reported under The Pollution Prevention Act of 1990 (as reported in Section 8 of Form R). These data elements include the amount of chemicals reported under TRI as generated as waste or recycled and used for energy recovery, or treated both on and off the facility premises (see Table 3, page 25). Facilities report for the current and prior year and provide projected totals for the next two years. Estimates for 2000 and 2001 indicate that the total waste processed or disposed by those facilities required to report under the TRI in Washington State decreased in 1999 as compared to 1998 but may increase in 2000 and 2001. The facilities estimate that on-site recycling and on-site treatment will increase in 1999 and 2000, but will be less than the amount reported for 1998.

Trends in TRI Releases and Transfers

Changes in TRI reporting requirements over time make year-to-year comparisons of TRI data difficult. Even when using normalized values, a single chemical at one facility can greatly impact the results. To be entirely accurate, perhaps we should only look at those chemicals that have been reported by particular facilities for all years. There are some facilities that have modified their chemical use so much that they no longer report. Excluding them from comparative totals would not give credit for reductions in those cases. Comparisons are most accurate when addressing a particular chemical over time. At that level, the original reports will show what has happened at a particular facility. However, the general trends in releases and transfers adjusted for changes in reporting can provide us with valuable information on changes in releases and transfers overall.

TRI releases to all environmental media decreased in 1999 by 3.2 million pounds when compared to 1998. Most of this decrease is accounted for by decreases at two facilities, the Centralia Power Plant and Kaiser Aluminum & Chemical Corp. in Mead. Reported releases decreased both in the manufacturing sector and in the seven industries that reported for the first time in 1998.

Figure 14 on page 27 shows the trends in TRI releases where all chemicals reported are included. The general trend over time has been for releases to decline. Releases in the manufacturing sector are at the lowest level since reporting began in 1987. Compared to 1989, releases of all chemicals by manufacturing facilities (not adjusted for changes in reporting) have decreased by 23.1 million pounds, a decrease of 51 percent. Since 1997, they have decreased by 2.1 million pounds or 8.6 percent. Comparing those chemicals that have had constant reporting requirements since 1989, releases have decreased from 22.0 pounds to 15.3 million pounds, a decrease of 30 percent.

Figure 14: Washington State TRI Releases, 1989-1999

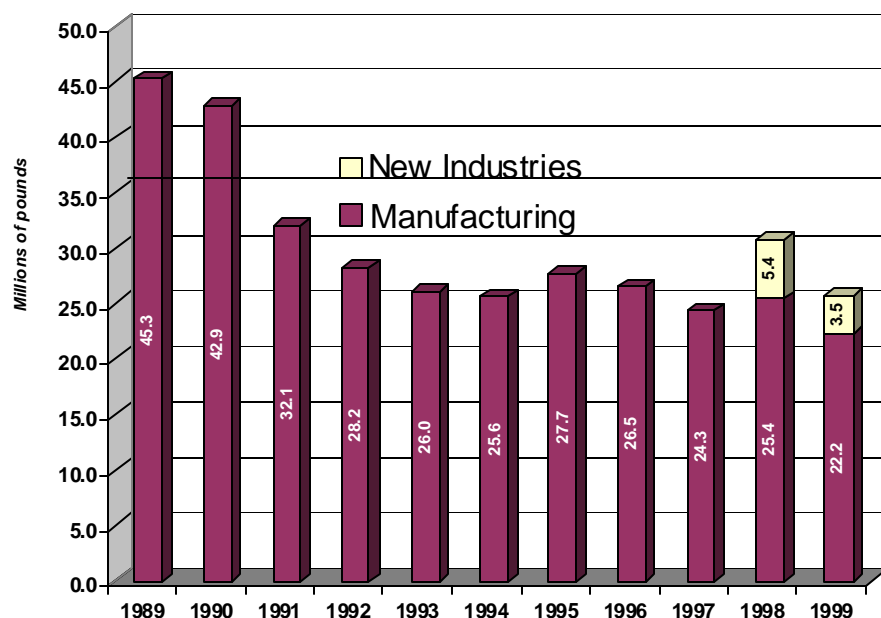
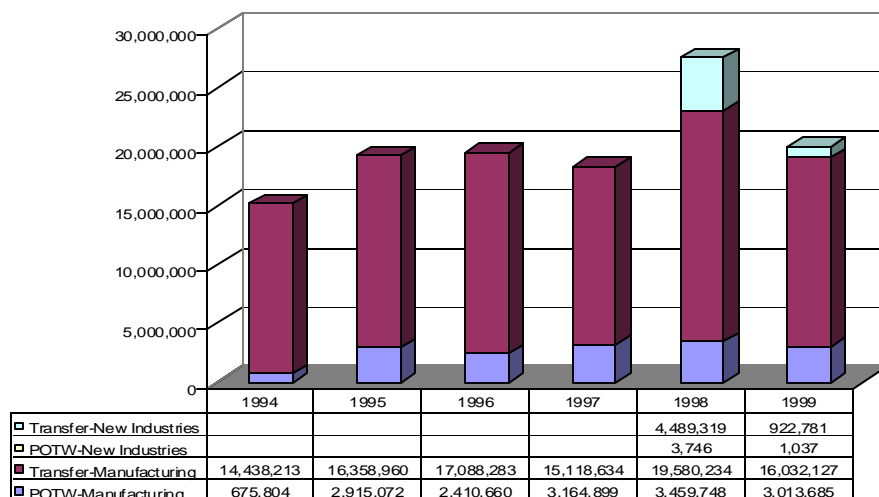


Figure 15 (below), shows changes in reporting for off-site transfers since 1994. The Pollution Prevention Act of 1990 significantly expanded reporting for off-site transfers for recycling, energy recovery and treatment. Also, the changes in sulfuric acid reporting beginning with the 1994 reporting year resulted in a 60 million-pound reduction in the state's off-site transfers between 1993 and 1994. The addition of reporting of nitrate compounds has resulted in an increase in reported transfers particularly to POTWs. The addition of the new industries in 1998 resulted in an increase in reported off-site transfers. The 1999 totals show a decrease in both industry categories relative to 1998, but still greater than the 1997 value. Overall, the trend in off-site transfers over time has been a slight increase since 1994.

Figure 15: Washington State TRI Transfers, 1994-1999



Uses of Chemical Data

Until EPCRA became law (in the mid 1980's), most national and local environmental laws looked at only one element of the environment at a time. Single-media reporting laws, like the Clean Air Act and the Clean Water Act, do not account for the shifting of a waste "stream" between one media and others. The comparison between them has been difficult because of conflicting reporting rules, measurement methods, chemical lists, reporting periods, and inconsistent industry exemptions and/or requirements. For these same reasons, it has been hard to build a comprehensive picture of the cumulative releases from a single facility, let alone multiple facilities in a local area.

Tier Two Data

Tier Two data is of particular value because it reflects chemical storage by facilities in the state of Washington. This information is critical to the SERC, LEPCs and local fire stations. The SERC assembles this information to help the citizens, government, and industry work toward a safer, cleaner state. LEPCs and local fire stations use the information sent by each facility to prepare for a possible accident or incident at each reporting facility.

TRI Data

TRI data is of particular value because it reflects toxic chemical releases to all the media around a facility — air, water, land, sewer, transfers off-site, etc. Toxic chemicals are generated from many sources, including manufacturing and non-manufacturing processes, agricultural chemical use, use and disposal of consumer products, transportation, indoor and outdoor burning, and other sources. It is important to note that not all of these sources are tracked by TRI. Non-tracked businesses and organizations, as well as individual and personal use, may also contribute substantial amounts of toxic chemicals to the environment.

Air quality is recognized as a significant indicator of environmental health. While about 75 percent of TRI releases are to the air, industrial sources contributed only 14 percent of the state's air pollutants. Other major sources of air pollution include motor vehicles, outdoor burning, and wood-stoves and fireplaces.

With TRI, it is easier for a given facility's host community (and others) to see the 'total' amounts of these toxic releases into one area /community. Communities who utilize TRI data are now in a better position to build a more complete picture of the cumulative releases around them. TRI data also provoke many questions with the public. Some of the most common questions include:

- Are the releases harmful to the community (human and/or environmental)?
- Who's keeps track of all these releases in relation to human and environmental health?
- Are these releases acceptable to the host community?

- If these releases continue, will they harm the community's long-term health and sustainability, including economic viability?
- Who bears the brunt of these releases?
- What are the cumulative effects of chemical releases?

Environmental Justice

Research shows that in general, low-income populations and communities of color are exposed to greater concentrations and quantities of toxic chemicals via pollution. This is commonly recognized as environmental in-justice, in-equity, or racism. One reason (of many) for this disproportionate impact is the close proximity of low-income residents to polluting facilities and contaminated sites.

Some - but certainly not all - of the state's polluting facilities are represented in this report because they handle (and often release) significant quantities of toxic wastes, and thus report under the "Toxic Release Inventory" (TRI). Although the TRI focuses on "industrial" facilities, there are many other types of facilities that contribute to urban and rural pollution that are not reflected in this report. Smaller and non-industrial businesses are one broad category of potential polluters that are not reflected in the TRI. And, let's not forget — like most polluting facilities, our cars, some of our purchases, and some of our home-based activities are also responsible for local pollution. These personal types of pollution may be legal, but they too can contribute to combined adverse impacts on the local environment and public health.

The greater combined, or 'cumulative' impact of local pollution – regardless of source, is of understandable and particular concern to those who live (or work) closest to the pollution. Often, it is residents with lower incomes and/or those who live in communities of color that are most exposed to local pollution. They are also less likely to have the resources to move away from or aggressively address these pollutants. Many don't want to move away — they value their communities and would prefer to stay. They would like to work with local facilities and other resources to reduce the pollution and associated risks. They are interested in increased local public awareness and health and they look to a more sustainable local environment, where they can live their lives without increased fear and/or actual long-term health risks from local pollution. Cumulative impacts are also of concern to Ecology and state and local public health agencies. Efforts to better coordinate between pollution and the public health-risk issues amongst a number of state and local interests and agencies are increasing — in the name of environmental justice.

Ecology recognizes that environmental justice/equity is an important goal. In 1994, the agency defined environmental equity as "... the proportionate and equitable distribution of environmental benefits and risks among diverse economic and cultural communities. It ensures that policies, activities, and the responses of government entities do not differentially impact diverse social and economic groups. Environmental equity promotes a safe and healthy environment for all people." What does this mean?

The Department of Ecology is actively working to:

- 1) Ensure our work and services are fairly allocated across the state;

- 2) Better engage local communities to participate in public involvement opportunities that relate to environmental management. The “Community Right-to-Know” effort (including this report) is one of many ways to support this. It’s about bringing the broader community (businesses, residents, schools, community organizations, local health and zoning officials, and more) closer together with common and timely information about the community’s local environment, including pollution;
- 3) Coordinate with the Environmental Protection Agency, state and local public health officials, and other environmental-based public agencies on environmental justice efforts, to develop, share, and consolidate resources;
- 4) Translate more documents (into Spanish, Korean, and Vietnamese –other languages are possible) where appropriate to increase effective communication with locally impacted communities that include significant populations with limited English proficiency;
- 5) Award grants for cleanup, permits, public involvement, and environmental management projects, etc. equitably. Ecology makes an effort to ensure that communities in need are aware of these resources and are encouraged and assisted to apply.

Washington State’s 1994 Legislature requested that this issue be studied by Ecology. In October 1995, *A Study on Environmental Equity in Washington State* (publication #95-413) was delivered to the Legislature. Some of the state’s low-income and minority populations were found to be living near a higher number of operating industrial facilities. In some counties, substantially higher amounts of TRI releases were also reported in low-income and/or minority areas. This presents a potential ‘environmental justice’ issue. This report can be read on Ecology’s website at <http://www.ecy.wa.gov/biblio/95413.html>

For more information about the Department’s work regarding environmental justice, and its relationship to Community Right-to-Know and the Toxic Release Inventory, please contact John Ridgway, in the Hazardous Waste and Toxics Reduction Program, at (360) 407-6713 or E-mail him at jrid461@ecy.wa.gov.

New and Pending EPCRA Developments

Regulatory Relief for Retail Gas Stations

Retail gas stations that store gasoline and diesel fuel entirely underground and are in compliance with Underground Storage Tank requirements are subject to new reporting thresholds under EPCRA Section 312 (Tier Two). The new reporting thresholds are:

- 75,000 gallons for all grades of gasoline combined; and
- 100,000 gallons for diesel fuel.

Convenience stores and truck stops that sell gasoline or diesel fuel to the public also meet the definition of “retail gas stations.” Retail gas stations meeting these criteria did not have to file gas and diesel inventory reports for calendar year 1998 that were due March 1, 1999.

Dioxins and other Persistent, Bioaccumulative Toxins

EPA has added the chemical dioxin and other persistent, bioaccumulative toxins (PBTs) to its TRI list of chemicals. PBTs are of concern in the environment because:

- They **persist** in the environment for a long time without breaking down;
- They build up in the tissues of humans, fish and animals (“**bioaccumulative**”);
- They have **toxic** effects (cancer and other health problems) on living organisms.

Many of these substances are man-made and have only been in the environment for a short period of human history. Substances like cadmium and mercury that occur naturally in the environment can create health and environmental problems when they are concentrated and refined. Because these chemicals are often produced or used in very small quantities, only small amounts have shown up in the TRI reportable chemicals over time (52,304 pounds in 1999 and 51,983 pounds in 1998).

Table 4: PBT Chemicals

<i>Chemical Name or Category</i>	<i>Reporting Threshold (2000 reporting year)</i>
Aldrin	100 lbs.
Benzo(g,h,i)perylene	10 lbs.
Chlordane	10 lbs.
Dioxin and dioxin-like compounds	0.1 grams
Heptachlor	10 lbs.
Hexachlorobenzene	10 lbs.
Isodrin	10 lbs.
Methoxychlor	100 lbs.
Octachlorostyrene	10 lbs.
Pendimethalin	100 lbs.
Pentachlorobenzene	10 lbs.
Polycyclic aromatic compounds category	100 lbs.
Polychlorinated biphenyl (PCBs)	10 lbs.
Tetrabromobisphenol A	100 lbs.
Toxaphene	10 lbs.
Trifluralin	100 lbs.
Mercury	10 lbs.
Mercury compounds	10 lbs.

In 1999, EPA published the final rule to add certain PBT chemicals to the TRI reportable chemicals, to establish a dioxin-like chemical category and to lower reporting thresholds for certain PBT chemicals. Most PBT chemicals (listed in Table 4, page 33) will be reportable at thresholds of ten or 100 pounds manufactured, processed or otherwise used. The first reports for these new thresholds will be provided for year 2000, due July 1, 2001. Many of these PBT chemicals are pesticides.

Dioxin, one of the PBTs, is a highly toxic compound that is known to cause adverse health effects in humans and animals in very small concentrations. Dioxin is produced in extremely small volumes (a few pounds per facility) by many industrial processes including incineration of waste, pulp and paper production and steel production. Because of this, dioxins have not been reported since their generation was below the minimum triggering thresholds for TRI. With the new reporting threshold for dioxin and dioxin-like compounds category, reporting is triggered when 0.1 grams of the chemical are manufactured, processed or otherwise used.

Along with efforts by EPA to address PBTs through enhancements to the Toxic Release Inventory, Ecology also has a PBT initiative. Specifically, Ecology is developing a long-term strategy to first reduce and eventually, where possible, eliminate PBTs from Washington State's environment. To date, Oregon is the only other state that has followed Washington's lead in this area. This ambitious but fundamental goal is based upon (and consistent with) Ecology's three essential priorities: clean up existing sites of notable pollution, prevent or reduce future environmental contamination, and support a long-term, sustainable environment for current and future generations.

Industry and the public will have opportunities to learn more about Washington's developing PBT strategy this year. Stakeholders are also invited to participate in, and support Ecology in this effort. The success of the PBT strategy development and implementation will be largely based upon coordinated support from a broad spectrum of participants, including Community Right-to-Know reporters and those interested in the TRI data.

Additionally, the state of Washington has an integrated pesticide policy which tracks chemicals such as those listed PBT chemicals. Twenty-three additional chemicals are being considered for addition to the state listing.

Lower Threshold for Lead TRI Reporting

EPA has issued a final rule that lowers the threshold for reporting of lead releases under TRI. The final rule was published in January 2001, but has been delayed for 60 days until April 2001. Lead remains in the environment for long periods of time and is toxic to humans, especially to children. Until now, facilities were not required to report lead and lead compound releases to air, water, and land unless they manufacture or process more than 25,000 pounds annually. These high thresholds severely limited the reporting of lead and lead compounds. Under the rule, the reporting thresholds would be lowered to 100 pounds per facility, per year. This lower threshold of this toxic chemical will help track releases of lead in the environment.

Information on TRI developments can be obtained from the TRI web page: <http://www.epa.gov/opptintr> or by calling EPA's EPCRA hotline at 1-800-535-0202.

Reporting Requirements and Glossary of Terms

Releases to Air

Releases to air are reported as either non-point or “fugitive” or point or “stack” emissions. Fugitive emissions are releases that are not conveyed through stacks, vents, pipes or any other confined air stream. Examples include leakage from valves, pump seals, flanges, compressors, open-ended lines, evaporative losses from surface impoundments and production lines, and releases from building ventilation systems. Stack or point air emissions are releases to air which are conveyed through stacks, vents, ducts, pipes or other confined air streams, and include storage tank emissions and air releases from control equipment.

Releases to Land

Releases to land occur on or near the boundary of the reporting facility. Releases to land include disposal of wastes in a landfill, in which the waste is buried, land treatment /application farming in which a waste is applied onto or incorporated into soil, and surface impoundment which is an uncovered holding area used to volatilize and/or settle waste materials.

Releases to Water

Releases to water include releases to streams, lakes, or other bodies of water.

Standard Industrial Classifications

The SIC code numbers and names listed here are the general industrial categories, a 2-digit number representing the general categories of manufactured products. Each facility will have one or more 4-digit numbers that specifically describes its manufacturing process.

SIC Code	Name	SIC Code	Name
10	Metal and Coal Mining	33	Primary Metal Products
12	Metal and Coal Mining	34	Fabricated Metal Products
20	Food and Kindred Products	35	Industrial, Commercial Machinery and Computers
21	Tobacco Manufacturers	36	Electronic Equipment and Components
22	Textile Mill Products	37	Transportation Equipment
23	Apparel and Other Textiles	38	Instruments and Related Products
24	Lumber and Wood Products	39	Misc. Manufacturing Industries
25	Furniture and Fixtures	4911	Electric Generating Plants (combusting coal or oil)
26	Paper and Allied Products	4931	Electric Generating Plants (combusting coal or oil)
27	Printing and Publishing	4939	Electric Generating Plants (combusting coal or oil)
28	Chemicals and Allied Products	4953	Hazardous Waste & Treatment Firms
29	Petroleum Refining	5169	Chemical Wholesale Distributors
30	Rubber And Misc. Plastic Products	5169	Wholesale Bulk Petroleum Distributors
31	Leather and Leather Products	7389	Solvent Recyclers
32	Stone, Clay and Glass Products		

Transfers to Public Owned Waste Water Treatment Works (POTW)

A POTW is a waste water treatment facility that is owned by a state or local municipality. Waste waters reported as transferred to POTWs are transferred through pipes or sewers. The chemicals contained in the waste water are treated at the POTW through a variety of methods. In general, chemicals are likely to be removed to some extent. Those chemicals not removed by treatment are released by the POTW to surface waters.

Thresholds

Amounts of chemicals that trigger reporting requirements. If a facility annually manufactures or processes any listed toxic chemical, the threshold quantity is 25,000 pounds. If a facility “otherwise uses” any listed chemical, in any way other than incorporating it into a product, the threshold quantity is 10,000 pounds.

Toxics Release Inventory Chemical List

EPA has adopted a list of some 600 chemicals which facilities must report under Section 313 of the EPCRA. With the Governor’s authority, a chemical may be added to the list if it is known to cause or can reasonably be anticipated to cause significant adverse acute health hazards outside a facility as a result of continuous or frequently recurring releases. In addition, chemicals may be added if they cause or may be reasonably anticipated to cause cancer or birth defects or serious or irreversible reproductive dysfunctions, neurological disorders, heritable genetic or other chronic health effects. A chemical that causes or may cause a significant adverse effect on the environment may be included. EPA may delete chemicals from the list if there is not sufficient evidence to establish that the chemical meets any of the criteria.

Off-site Transfers

An off-site transfer is the transfer of wastes to a facility that is geographically or physical separate from the manufacturing site. Chemicals are reported as either transfers for treatment, disposal, recycling, energy recovery or “other” means.

Off-site Transfers for Disposal

Disposal of toxic chemicals usually means either release to land (as in a landfill) or underground injection, in this case, at the off-site location.

Off-site Transfers for Energy Recovery

Energy recovery is the combustion in industrial furnaces or boilers that generate energy for use at the location. Non-combustible chemicals like metals and halons should not be reported under this category. Treatment or destruction by incineration is not energy recovery.

Off-site Transfers for Recycling

Recycling means the recovery or regeneration of chemicals by a variety of methods including solvent recovery, metals recovery or acid regeneration. Once they have been recovered, the chemicals may be returned to the originating facility or made available for commerce.

Off-site Transfers for Treatment

Treatment of toxic chemicals may include biological treatment, neutralization, incineration or physical separation. Treatment usually results in varying degrees of destruction of the chemical. Treatment may mean preparation for disposal.

Underground Injection

Underground injection is the disposal of fluids by burial of the fluids in a Class I or V well.

Total Waste

The sum of Section 8, Column B on Form R or the total of releases, on- and off-site recycling, on- and off-site energy recovery, and on- and off-site treatment for the current reporting year. Where this total is 500 pounds or less and total chemical use is less than one million pounds, a facility may use the abbreviated Form A or certification Form to report.

Acronyms

Ecology – Washington State Department of Ecology

EHS – extremely hazardous substance, 40 CFR Part 355.30

EPA - Environmental Protection Agency

EPCRA - Emergency Planning and Community Right-to-Know Act of 1986

Form R- Five page individual chemical report filed under EPCRA Section 313, the Toxics Release Inventory

Form A – Two page individual chemical report filed under EPCRA Section 313, the Toxics Release Inventory

LEPC – Local Emergency Planning Committee

OSHA - Occupational Safety and Health Administration

POTW- Publicly owned treatment works

SARA Title III – Superfund Amendments and Reauthorization Act Title III, another name for EPCRA

SERC- State Emergency Response Commission

Tier Two-Emergency Planning and Hazardous Chemical Inventory Reports filed under EPCRA Section 312

TRI – Toxic or Toxics Release Inventory, EPCRA 313 and data collected under EPCRA 313

TRIDS – Toxics Release Inventory Display System

Appendix 2

Number of Tier Two Reporting Facilities and Chemicals Reported

County	Total Number of Facilities Reporting	Total Number of Chemicals Reported	Number of Facilities Reporting EHS	Number of EHS Chemicals Reported
Adams	37	195	26	70
Asotin	10	22	3	3
Benton	66	308	43	80
Chelan	82	414	54	142
Clallam	50	132	22	26
Clark	122	741	61	162
Columbia	14	46	11	20
Cowlitz	60	404	34	65
Douglas	30	69	18	20
Ferry	6	23	1	3
Franklin	64	732	35	156
Garfield	15	48	9	11
Grant	100	697	51	191
Grays Harbor	62	177	25	34
Island	30	85	9	10
Jefferson	14	54	4	6
King	693	2773	309	508
City of Auburn	21	115	5	10
City of Kent	101	687	43	136
SW Snohomish	10	30	9	12
King	561	1941	252	350
Kitsap	75	202	43	56
Kittitas	42	88	16	20
Klickitat	10	49	6	11
Lewis	59	174	26	32
Lincoln	34	99	23	33
Mason	21	41	8	8
Okanogan	56	190	32	86
Pacific	20	42	12	13
Pend Oreille	7	36	2	5
Pierce	218	899	105	139
City of Puyallup	8	23	4	4
City of Steilacoom	1	17	1	1
Fort Lewis	1	23	1	2
Pierce	208	836	99	132
San Juan	18	31	4	4
Skagit	90	437	28	65
Snohomish	158	539	73	100
Snohomish	131	458	60	82

County	Total Number of Facilities Reporting	Total Number of Chemicals Reported	Number of Facilities Reporting EHS	Number of EHS Chemicals Reported
SW Snohomish	27	81	13	18
Spokane	217	1041	94	163
Stevens	23	88	11	12
Thurston	66	160	25	31
Wahkiakum	5	7	4	4
Walla Walla	57	324	28	82
Whatcom	87	504	32	64
Whitman	62	333	39	92
City of Pullman	11	41	6	13
Whitman	51	292	33	79
Yakima	167	750	114	252

Appendix 3

Washington State TRI by Chemical, 1999

Rank	Chemical	CARCINOGEN	Air	Water	Land	99 Releases	99 Transfer	98 Releases	98 Transfers
1	Methanol	No	3,969,019	553,046	5,850	4,527,915	80,357	5,559,941	129,413
2	Carbonyl Sulfide	No	2,322,374	0	0	2,322,374	0	2,267,878	0
3	Nitrate Compounds	No	531	1,860,942	198,060	2,059,533	3,425,888	1,982,086	3,951,178
4	Ammonia	No	1,604,688	279,175	35,462	1,919,325	364,634	2,308,291	388,057
5	Hydrogen Fluoride	No	1,819,099	5	5	1,819,109	8,542	3,539,843	88,371
6	Hydrochloric Acid	No	1,586,848	0	0	1,586,848	1,440	497,757	0
7	Styrene	Yes	1,544,742	193	0	1,544,935	22,027	1,426,496	43,243
8	Sulfuric Acid	No	1,339,131	0	0	1,339,131	0	300,649	0
9	Methyl Ethyl Ketone	No	871,380	2,134	5	873,519	1,104,018	1,032,242	1,476,998
10	Toluene	No	816,689	387	997	818,073	477,046	894,304	1,009,898
11	Acetaldehyde	Yes	692,713	44,132	63	736,908	0	730,106	0
12	Manganese	No	6,876	214,089	497,484	718,449	718,966	1,171,170	643,677
13	Barium Compounds	No	1,555	19,980	688,570	710,105	334,610	1,293,265	317,143
14	Glycol Ethers	No	518,014	3,800	5	521,819	175,649	187,886	0
15	N-Butyl Alcohol	No	426,035	0	0	426,035	25,105	512,237	106,190
16	Chloroform	Yes	396,993	18,108	272	415,373	0	458,836	0
17	Zinc Compounds	No	29,856	32,535	274,872	337,263	5,103,164	715,540	4,452,246
18	Xylene (Mixed)	No	316,803	100	317	317,220	104,834	475,229	443,958
19	Lead Compounds	Yes	2,010	9	255,973	257,992	362,365	331,146	484,742
20	Chlorine	No	240,674	15,025	0	255,699	0	293,801	12,300
21	Trichloroethylene	Yes	221,577	5	0	221,582	16,958	229,570	79,380
22	Copper Compounds	No	8,526	1,195	188,391	198,112	596,791	301,644	801,393
23	Formaldehyde	Yes	142,922	16,174	26	159,122	4,346	195,422	2,461
24	Methyl Isobutyl	No	137,685	0	0	137,685	67,368	93,838	110,413
25	Phenol	No	134,110	753	310	135,173	47,629	135,818	16,772
26	N-Hexane	No	121,351	326	53	121,730	3,667	203,641	13,153

Rank	Chemical	CARCINOGEN	Air	Water	Land	99 Releases	99 Transfer	98 Releases	98 Transfers
27	Dichloromethane	Yes	111,635	6	0	111,641	50,046	169,649	171,756
28	Nickel Compounds	Yes	58	1,052	104,915	106,025	83,181	148,406	144,544
29	Chromium	No	827	16,259	85,028	102,114	291,490	198,146	294,325
30	Benzene	Yes	98,439	190	26	98,655	3,334	79,308	123,165
31	Cyclohexane	No	84,941	388	33	85,362	18,506	62,246	1,021
32	Freon 113	No	74,005	0	0	74,005	20,130	117,250	18,905
33	Diethanolamine	No	67,230	3,100	0	70,330	35,155	14,360	0
34	Polycyclic Aromatic	Yes	51,393	95	270	51,758	1,232,634	50,685	1,630,115
35	Cobalt Compounds	Yes	262	98	44,459	44,819	12,013	117,062	15,887
36	1,1-Dichloro-1-	No	41,275	0	0	41,275	1,829	37,401	5,123
37	Ethylene	No	40,865	0	0	40,865	0	41,347	0
38	Propylene	No	38,921	0	0	38,921	0	22,429	0
39	Sec-Butyl Alcohol	No	37,001	0	0	37,001	15,961	34,300	22,272
40	Cresol (Mixed	No	34,106	212	2	34,320	6	48,203	9
41	Tetrachloroethylene	Yes	13,869	0	17,059	30,928	45,072	62,253	63,557
42	Ethylbenzene	No	30,328	50	19	30,397	6,774	50,564	8,764
43	Dichlorodifluorometh	No	27,548	0	0	27,548	8,668	25,030	0
44	Nickel	Yes	11,658	1,356	7,410	20,424	141,334	22,831	150,374
45	Manganese	No	1,759	647	18,005	20,411	135,080	18,415	318,712
46	Carbon Disulfide	No	17,262	3	0	17,265	2	10,341	5
47	Chlorodifluorometha	No	17,263	0	0	17,263	261	5,134	325
48	Copper	No	3,106	1,111	12,770	16,987	2,855,301	11,436	2,027,698
49	Cyanide Compounds	No	0	0	13,000	13,000	11	16,000	17,568
50	Arsenic Compounds	Yes	63	36	11,692	11,791	1,551	20,547	2,198
51	1,2,4-	No	11,403	50	58	11,511	11,826	13,049	7,034
52	Ethylene Glycol	No	10,841	0	130	10,971	499,142	37,941	1,439,020
53	Metham Sodium	No	9,984	40	0	10,024	14,174	6,388	4,571
54	Formic Acid	No	1,772	7,700	0	9,472	0	1,000	0
55	Vinyl Acetate	No	8,180	900	0	9,080	0	1,950	0
56	Zinc (Fume Or Dust)	No	7,440	500	0	7,940	161,567	3,040	97,176
57	Chlorine Dioxide	No	7,308	0	0	7,308	0	17,031	0
58	N-Methyl-2-	No	6,761	0	5	6,766	227,712	6,244	250,413
59	Dibutyl Phthalate	No	5,498	5	0	5,503	1,030		501

Rank	Chemical	CARCINOGEN	Air	Water	Land	99 Releases	99 Transfer	98 Releases	98 Transfers
60	Nitric Acid	No	4,307	21	5	4,333	402,211	6,006	1,126,434
61	Naphthalene	No	3885	4	27	3,916	6,944	4,858	271,507
62	Catechol	No	,788	2973	11	3,772	19,603	3,869	0
63	Biphenyl	No	3,750	1	0	3,751	3,876	2,382	4,272
64	Cumene	No	3,130	0	12	3,142	298	3,150	9,271
65	Methyl Tert-Butyl	No	2,687	0	0	2,687	248	4,118	5,184
66	Creosote	Yes	1,795	10	0	1,805	6,508	1,515	29,637
67	Lithium Carbonate	No	1,418	250	0	1,668	0	1,786	0
68	Aluminum (Fume Or	No	1,617	0	40	1,657	5,250	1,635	4
69	Chromium	No	1,467	97	0	1,564	75,151	14,976	137,131
70	Phenanthrene	No	1,277	1	0	1,278	2,184	1,284	1,657
71	Lead	Yes	531	593	0	1,124	202,396	4,752	62,954
72	Methyl Methacrylate	No	1,000	0	0	1000	750	16,678	4,655
73	1,3-Butadiene	No	921	0	0	921	0	1,277	0
74	Ozone	No	832	0	5	837	0		
75	Molybdenum	No	760	5	0	765	36,505	265	66,555
76	Mercury Compounds	No	589	17	0	606	39,659	1,298	1,289
77	Di(2-Ethylhexyl)	No	257	250	5	512	4,251	1,008	755
78	Quinoline	No	381	1	0	382	633	310	1,078
79	Toluene	Yes	346	0	0	346	0	586	80
80	Diisocyanates	No	319	0	0	319	18,787	81	4,190
81	Dimethyl Phthalate	No	271	0	0	271	0		
82	1,2,4-	No	270	0	0	270	0		
83	Diphenylamine	No	0	0	250	250	0	250	0
84	1,3-	No	195	0	0	195	0	145	0
85	Sodium	No	153	4	0	157	216	181	149
86	Acrylic Acid	No	141	0	0	141	0	181	0
87	Trans-1,3-	No	85	0	0	85	0	70	0
88	Acrylamide	Yes	32	0	0	32	228	27	222
89	Benzoyl Peroxide	No	20	0	0	20	356	26	428
90	Dimethylamine	No	9	7	0	16	0	12	0
91	Chloropicrin	No	4	0	0	4	0	4	0
92	Asbestos (Friable)	Yes	1	0	0	1	0	9	418,455

Rank	Chemical	CARCINOGEN	Air	Water	Land	99 Releases	99 Transfer	98 Releases	98 Transfers
93	Antimony	No	0	0	0	0	12,576	10,265	54,638
94	Cadmium	Yes	0	0	0	0	60	22	67
95	Acetonitrile	Yes	0	0	0	0	12,165		
96	Silver	No	0	0	0	0	194,107		
97	Decabromodiphenyl	No	0	0	0	0	5,224	0	13,926

Appendix 4

Washington State Certification Form Reporters, 1999

Facility	County	Chemical	City
ACHILLES USA INC	SNOHOMISH	ANTIMONY COMPOUNDS	EVERETT
		BARIUM COMPOUNDS	
		CADMIUM COMPOUNDS	
		ZINC COMPOUNDS	
ADM ANIMAL HEALTH & NUTRITION	SPOKANE	COPPER COMPOUNDS	SPOKANE
		MANGANESE COMPOUNDS	
		SELENIUM COMPOUNDS	
AIR LIQUIDE AMERICA CORP	PIERCE	PROPYLENE	TACOMA
AMERICAN SILICON TECHNOLOGIES	DOUGLAS	COPPER	ROCK ISLAND
ASAHIPEN AMERICA, INC.	KING	ETHYLENE GLYCOL	SEATTLE
BALL METAL BEVERAGE CONTAINER		MANGANESE	KENT
BARDAHL MFG. CORP.		LEAD COMPOUNDS	SEATTLE
BASIC AMERICAN FOODS	GRANT	AMMONIA	MOSES LAKE
BAXTER MFG	PIERCE	DIISOCYANATES	ORTING
BETZDEARBORN - WASHOUGAL	CLARK	1,2,4-TRIMETHYLBENZENE	WASHOUGAL
		NAPHTHALENE	
BIRD-JOHNSON COMPANY BALLARD	KING	COPPER	SEATTLE
BORDEN CHEMICAL, INC.		AMMONIA	KENT
BROOKS MANUFACTURING CO	WHATCOM	PENTACHLOROPHENOL	BELLINGHAM
CANAM STEEL CORPORATION	YAKIMA	ALUMINUM (FUME OR DUST)	SUNNYSIDE
		BARIUM COMPOUNDS	
		CHROMIUM	
		COPPER	
		I FAD	

		PHOSPHORUS (YELLOW OR WHITE)	
		ZINC (FUME OR DUST)	
CASCADE COLUMBIA DISTRIBUTION	KING	NITRIC ACID	SEATTLE
		TRICHLOROETHYLENE	
CASCADE POLE & LUMBER CO	PIERCE	ARSENIC COMPOUNDS	TACOMA
		CHROMIUM COMPOUNDS	
		COPPER COMPOUNDS	
		PENTACHLOROPHENOL	
CH2O, INC.	THURSTON	SODIUM NITRITE	OLYMPIA
CHEMCENTRAL/SEATTLE	KING	1,2,4-TRIMETHYLBENZENE	KENT
		DICHLOROMETHANE	

Facility	County	Chemical	City
		ETHYLBENZENE	
		GLYCOL ETHERS	
		METHANOL	
CHEMCENTRAL/SEATTLE	KING	METHYL ISOBUTYL KETONE	KENT
		N-BUTYL ALCOHOL	
		N-HEXANE	
		NAPHTHALENE	
		SEC-BUTYL ALCOHOL	
		STYRENE	
		TETRACHLOROETHYLENE	
		TOLUENE	
		TRICHLOROETHYLENE	
CHEMCO INC	WHATCOM	ARSENIC COMPOUNDS	FERNDALE
		CHROMIUM COMPOUNDS	
		COPPER COMPOUNDS	
COLUMBIA MACHINE INC	CLARK	METHANOL	VANCOUVER
CONNELLY SKIS INC	SNOHOMISH	DIISOCYANATES	LYNNWOOD
CUTLER-HAMMER	KING	COPPER	KENT
CYTEC INDUSTRIES, INC.	COWLITZ	ACRYLIC ACID	LONGVIEW
		AMMONIA	
		HYDROCHLORIC ACID	
		METHANOL	
EXOTIC METALS FORMING CO.	KING	CHROMIUM COMPOUNDS	KENT
		NICKEL COMPOUNDS	
FARWEST PAINT MFG CO		TOLUENE	TUKWILA
		XYLENE (MIXED ISOMERS)	
FLEETWOOD HOMES OF WASHINGTON,	COWLITZ	DIISOCYANATES	WOODLAND
FLUKE CORPORATION	SNOHOMISH	COPPER	EVERETT
FOAMEX LP - KENT	KING	DIETHANOLAMINE	KENT
FOAMEX LP - LAKEWOOD	PIERCE	DIISOCYANATES	LAKESWOOD
FORT JAMES CAMAS LLC	CLARK	POTASSIUM N-METHYLDITHIOCARBAMATE	CAMAS
GACO WESTERN, INC.	KING	TOLUENE DIISOCYANATE (MIXED ISOMERS)	TUKWILA
GOLDENDALE ALUMINUM COMPANY	Klickitat	CHLORINE	GOLDENDALE
		CHROMIUM	
		COPPER	
		MANGANESE	
INCHELIUM TRIBAL WOOD TREATMEN	FERRY	ARSENIC COMPOUNDS	INCHELIUM
		CHROMIUM COMPOUNDS	
		COPPER COMPOUNDS	
INLAND EMPIRE PAPER COMPANY	SPOKANE	CHROMIUM COMPOUNDS	SPOKANE
		NICKEL COMPOUNDS	
INTALCO ALUMINUM CORPORATION	WHATCOM	COPPER	FERNDALE
		MANGANESE	
J.H. BAXTER & CO.	SNOHOMISH	PENTACHLOROPHENOL	ARLINGTON
JANICKI MACHINE DESIGN INC	SKAGIT	DIISOCYANATES	SEDRO WOOLLEY

Facility	County	Chemical	City
		STYRENE	
JCI JONES CHEMICALS, INC.	PIERCE	AMMONIA	TACOMA
KELLY-MOORE/PRESERVATIVE PAINT	KING	GLYCOL ETHERS	SEATTLE
		XYLENE (MIXED ISOMERS)	
LAMB-WESTON, INC.	GRANT	CHLORINE	QUINCY
LAND O'LAKES CHEHALIS	LEWIS	COPPER COMPOUNDS	CHEHALIS
		MANGANESE COMPOUNDS	
		ZINC COMPOUNDS	
LAND O'LAKES EVERSON	WHATCOM	COPPER COMPOUNDS	EVERSON
		MANGANESE COMPOUNDS	
		ZINC COMPOUNDS	
LIFELAST INC	CLARK	DIISOCYANATES	VANCOUVER
METALLIC ARTS INC	SPOKANE	COPPER	SPOKANE
MICA BRICK PLANT		CHROMIUM COMPOUNDS	MICA
		MANGANESE COMPOUNDS	
MIKRON INDUSTRIES INC	KING	ANTIMONY COMPOUNDS	KENT
		CHROMIUM COMPOUNDS	
NEWCASTLE BRICK PLANT		BARIUM COMPOUNDS	RENTON
		MANGANESE COMPOUNDS	
NOEL CANNING	YAKIMA	AMMONIA	YAKIMA
		CHLORINE	
NORTHWEST CASTINGS	KING	CHROMIUM	SEATTLE
		MANGANESE	
NORTHWEST TERMINALLING COMPANY	FRANKLIN	CRESOL (MIXED ISOMERS)	PASCO
O'BRIEN INTERNATIONAL	KING	DIISOCYANATES	REDMOND
PENFORD FOOD INGREDIENTS CO	BENTON	PROPYLENE OXIDE	RICHLAND
PEPSI COLA BOTTLING CO	YAKIMA	CHLORINE	YAKIMA
PONDERAY NEWSPRINT COMPANY	PEND OREILLE	POTASSIUM DIMETHYLDITHIOCARBAMATE	USK
PURINA MILLS INC	SPOKANE	COPPER COMPOUNDS	SPOKANE
		MANGANESE COMPOUNDS	
		ZINC COMPOUNDS	
R. A. PEARSON COMPANY		CHROMIUM COMPOUNDS	
REYNOLDS METALS CO.	COWLITZ	CARBONYL SULFIDE	LONGVIEW
SAVAGE WESTERN TRANSPORTS, INC	FRANKLIN	AMMONIA	PASCO
SNOKIST GROWERS - CANNERY	YAKIMA	AMMONIA	YAKIMA
		CHLORINE	
ST JOHN GRANGE SUPPLY INC	WHITMAN	AMMONIA	SAINT JOHN
		BROMOXYNIL	
		TRIALATE	
SUPERIOR WOOD TREATING	PIERCE	ARSENIC COMPOUNDS	SUMNER
		CHROMIUM COMPOUNDS	
SUPERIOR WOOD TREATING	PIERCE	COPPER COMPOUNDS	SUMNER
TELECT INC	SPOKANE	DIISOCYANATES	LIBERTY LAKE
		LEAD COMPOUNDS	
TESSENDERLO KERLEY, INC.	BENTON	DIMETHYLAMINE	KENNEWICK

Facility	County	Chemical	City
		SODIUM DIMETHYLDITHIOCARBAMATE	
THE OESER COMPANY	WHATCOM	PENTACHLOROPHENOL	BELLINGHAM
TOSCO, RENTON TERMINAL	KING	NAPHTHALENE	RENTON
TRIDENT SEAFOODS CORP	SKAGIT	AMMONIA	ANACORTES
U.S. OIL & REFINING CO.	PIERCE	GLYCOL ETHERS	TACOMA
VAN DOREN SALES INC	DOUGLAS	CHROMIUM	EAST WENATCHEE
VAN WATERS & ROGERS INC	SPOKANE	ETHYLENE GLYCOL	SPOKANE
		METHANOL	
		METHYL ETHYL KETONE	
VAN WATERS & ROGERS INC.	KING	1,2,4-TRIMETHYLBENZENE	KENT
		DIETHANOLAMINE	
		ETHYLBENZENE	
		ETHYLENE GLYCOL	
		GLYCOL ETHERS	
		METHYL ISOBUTYL KETONE	
		N-BUTYL ALCOHOL	
		NITRIC ACID	
		TETRACHLOROETHYLENE	
		TOLUENE	
		XYLENE (MIXED ISOMERS)	
VANALCO INC.	CLARK	CHLORINE	VANCOUVER
		NICKEL	
		PHENANTHRENE	
		POLYCYCLIC AROMATIC COMPOUNDS	
WESTERN PNEUMATIC TUBE CO.	KING	CHROMIUM	KIRKLAND
		NICKEL	
WESTERN RECREATIONAL VEHICLES	YAKIMA	DIISOCYANATES	YAKIMA
WESTERN SINTERING CO. INC.	BENTON	AMMONIA	RICHLAND
WESTERN STEEL CASTING CO	KING	CHROMIUM	SEATTLE
		MANGANESE	
		NICKEL	
WESTERN WOOD PRESERVING CO	PIERCE	ARSENIC COMPOUNDS	SUMNER
		CHROMIUM COMPOUNDS	
		COPPER COMPOUNDS	
YAKIMA BAIT COMPANY/WORDEN'S L	YAKIMA	LEAD	GRANGER

Appendix 5

TRI by Chemical, 1999 (in pounds)

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Adams								
Mccain Foods Usa, Inc - Othello	Ammonia	0	0	3,520	3,520	0	84,958	0
County Totals		Sum Of Water1: 0	Sum Of Land1: 0	Sum Of Air1: 3,520	Sum Of 99 Releases1: 3,520	Sum Of 99Transfer1: 0		
Benton								
Lamb Weston Inc -Richland	Chlorine	0	0	0	0	0	0	0
	Nitrate Compounds	3,252	0	0	3,252	0	5,147	0
		Sum Of Water: 3,252	Sum Of Land: 0	Sum Of Air: 3,520	Sum Of 99 Releases: 6,772	Sum Of 99Transfer: 0		
Prodicta LLC -Kennewick	Ammonia	5,100	200	35,700	41,000	0	51,745	0
	Copper	0	5	0	5	0	0	15,100
	Nickel	0	5	0	5	0	5	0
	Nitrate Compounds	0	5	0	5	0	850	0
	Zinc Compounds	0	5	0	5	0	0	21,200
		Sum Of Water: 5,100	Sum Of Land: 220	Sum Of Air: 35,700	Sum Of 99 Releases: 41,020	Sum Of 99Transfer: 0		
Prodicta LLC -Kennewick	Ammonia	500	200	200	900	0	23,545	0
Prodicta LLC -Kennewick	Ammonia	1,400	800	654,200	656,400	10,500	838,540	16,926
	Nitrate Compounds	14,200	57,000	255	71,555	333,900	142,465	521,900
	Nitric Acid	5	5	0	10	0	10	0
		Sum Of Water: 16,105	Sum Of Land: 58,105	Sum Of Air: 654,655	Sum Of 99 Releases: 728,865	Sum Of 99Transfer: 344,400		
Richland Specialty Extrusions - Richland	Copper	0	0	0	0	0	0	0
Sandvik Special Metals Corp - Kennewick	Hydrogen Fluoride	5	0	55	60	0	300	0
	Nitrate Compounds	525,500	0	0	525,500	0	559,265	0
	Nitric Acid	11	0	115	126	0	525	0
		Sum Of Water: 525,516	Sum Of Land: 0	Sum Of Air: 170	Sum Of 99 Releases: 525,686	Sum Of 99Transfer: 0		
Siemens Power Corp.-	Ammonia	0	0	3,600	3,600	250	42,300	750

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Richland								
	Hydrogen Fluoride	0	0	250	250	1,080	250	250
	Nitrate Compounds	0	0	0	0	627,000	0	861,000
	Nitric Acid	0	0	0	0	21,200	0	9,600
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 3,850	Sum Of 99 Releases: 3,850	Sum Of 99Transfer: 649,530		
Tessenderlo Kerley, Inc - Kennewick	Ammonia	0	937	3,328	4,265	19,770	3,149	19,449
	Carbon Disulfide	0	0	255	255	0	10	0
	Metham Sodium	0	0	1,350	1,350	220	2,171	300
		Sum Of Water: 0	Sum Of Land: 937	Sum Of Air: 4,933	Sum Of 99 Releases: 5,870	Sum Of 99Transfer: 19,990		
County Totals		Sum Of Water1: 549,973	Sum Of Land1: 59,262	Sum Of Air1: 699,308	Sum Of 99 Releases1: 1,308,543	Sum Of 99Transfer1: 1,013,920		
Chelan								
Alcoa Wenatchee Works - Malaga	Carbonyl Sulfide	0	0	594,000	594,000	0	571,800	0
	Copper	0	0	435	435	585	1,465	181
	Hydrogen Fluoride	0	0	94,978	94,978	0	94,028	0
	Polycyclic Aromatic Compounds	0	0	6,121	6,121	20,549	11,522	13,825
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 695,534	Sum Of 99 Releases: 695,534	Sum Of 99Transfer: 21,134		
Tree Top Inc -Wenatchee	Nitrate Compounds	0	0	0	0	43,800	0	16,300
County Totals		Sum Of Water1: 0	Sum Of Land1: 0	Sum Of Air1: 695,534	Sum Of 99 Releases1: 695,534	Sum Of 99Transfer1: 64,934		
Clallam								
Admiral Marine Construction, Port Angeles	Styrene	0	0	1,310	1,310	0		
Daishowa America Co - Port Angeles	Ammonia	6,750	0	250	7,000	0	28,250	0
	Nitrate Compounds	104,386	0	0	104,386	0		
	Sulfuric Acid	0	0	32,158	32,158	0		
		Sum Of Water: 111,136	Sum Of Land: 0	Sum Of Air: 33,718	Sum Of 99 Releases: 144,854	Sum Of 99Transfer: 43,800		
County Totals		Sum Of Water1: 111,136	Sum Of Land1: 0	Sum Of Air1: 33,718	Sum Of 99 Releases1: 144,854	Sum Of 99Transfer1: 0		
Clark								
Allweather Wood Treaters - Washougal	Arsenic Compounds	10	0	0	10	958	26	624
Allweather Wood Treaters - Washougal	Chromium Compounds	12	0	0	12	766	28	499

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Copper Compounds	7	0	0	7	383	10	250
		Sum Of Water: 29	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 29	Sum Of 99Transfer: 2,107		
Attbar, Inc - Ridgefield	Styrene	0	0	113,689	113,689	0	94,612	0
AVX Vancouver Corp - Vancouver	Barium Compounds	0	0	0	0	214,283	0	156,980
Axyl Inc. - Vancouver	Styrene	0	0	5,847	5,847	0	4,525	0
Christensen Shipyards - Vancouver	Styrene	0	0	9,596	9,596	0	13,068	0
Columbia Machine Inc – Vancouver	Manganese	0	0	20	20	17,000	20	21,013
Corrosion Controllers Inc - Washougal	Styrene	0	0	8,370	8,370	0	9,860	0
Exterior Wood Inc - Washougal	Arsenic Compounds	12	0	6	18	477	18	1,416
	Chromium Compounds	12	0	12	24	326	15	1,272
	Copper Compounds	7	0	36	43	259	12	820
		Sum Of Water: 31	Sum Of Land: 0	Sum Of Air: 137,576	Sum Of 99 Releases: 137,607	Sum Of 99Transfer: 232,345		
Fabricated Products Inc – Vancouver	Lead Compounds	3	0	1	4	0	1	0
Fort James Camas - Camas	Acetaldehyde	5	5	51,000	51,010	0	55,305	0
	Ammonia	26,000	0	130,250	156,250	0	156,250	0
	Catechol	2,500	5	750	3,255	0	3,355	0
	Chlorine	0	0	8,650	8,650	0	9,450	0
	Chlorine Dioxide	0	0	1,505	1,505	0	1,705	0
	Chloroform	2,000	250	114,000	116,250	0	120,805	0
	Chromium Compounds	4,900	1,300	250	6,450	0	3,150	0
	Cyclohexane	250	0	59,000	59,250	18,000	28,250	0
	Dichloromethane	5	0	7,200	7,205	5,500	10,550	250
	Formaldehyde	6,600	5	24,250	30,855	0	26,950	0
	Formic Acid	1,900	0	0	1,900	0	0	0
	Glycol Ethers	3,400	5	17,000	20,405	0	18,005	0
	Methanol	390,000	750	681,000	1,071,750	9,400	1,071,250	2,000
Fort James Camas	Methyl Ethyl Ketone	1,500	5	13,300	14,805	0	13,605	0
	Nitrate Compounds	92,000	250	0	92,250	0	92,650	
	Nitric Acid	0	0	0	0	0	0	0
	Phenol	0	250	250	500	34,000	4,100	5,300
	Sulfuric Acid	0	0	39,000	39,000	0	39,000	0
		Sum Of Water: 531,063	Sum Of Land: 2,825	Sum Of Air: 1,147,406	Sum Of 99 Releases: 1,681,294	Sum Of 99Transfer: 66,900		
Frito Lay - Vancouver	Nitric Acid	0	0	0	0	0		
G L & V/ Lavallev Ind Inc –	Styrene	0	0	8,171	8,171	250	12,450	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Vancouver								
Harder Mechanical Fabrication – Vancouver	Chromium	0	0	250	250	0	250	0
	Nickel	0	0	250	250	0	250	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 8,671	Sum Of 99 Releases: 8,671	Sum Of 99Transfer: 250		
Linear Technology Corporation - Camas	Hydrogen Fluoride	0	0	125	125	157	121	14,905
Matsushita Kotobuki Electronic - Vancouver	Antimony Compounds	0	0	0	0	12,576	0	52,378
	Decabromodiphenyl Oxide	0	0	0	0	5,224	0	13,926
	Methanol	0	0	1,590	1,590	250	15,509	0
	Methyl Ethyl Ketone	0	0	1,720	1,720	388	17,166	0
	N-Butyl Alcohol	0	0	5,056	5,056	529	46,474	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 8,491	Sum Of 99 Releases: 8,491	Sum Of 99Transfer: 19,124		
Pendleton Woolen Mills - Washougal	Formic Acid	0	0	0	0	0	0	0
SEH-America Inc - Vancouver	Hydrochloric Acid	0	0	596	596	0		
	Hydrogen Fluoride	0	0	135	135	4,165	450	0
	Nitrate Compounds	0	0	0	0	1,070,000	0	1,099,000
	Nitric Acid	0	0	290	290	1,205	1,550	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 1,021	Sum Of 99 Releases: 1,021	Sum Of 99Transfer: 1,075,370		
Technaflow, Inc - Vancouver	Chromium	0	0	0	0	26,365	0	28,545
Technaflow, Inc - Vancouver	Nickel	0	0	0	0	18,473	0	20,765
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 44,838		
Thompson Metal Fab Inc - Vancouver	Chromium	0	0	250	250	13,500	250	12,500
	Nickel	0	0	250	250	5,000	250	4,700
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 500	Sum Of 99 Releases: 500	Sum Of 99Transfer: 18,500		
Trim Systems - Vancouver	Diisocyanates	0	0	10	10	12,163	0	2,550
Universal Structural Inc - Vancouver	Nickel	0	0	5	5	0	5	0
Vanalco Inc - Vancouver	Carbonyl Sulfide	0	0	410,000	410,000	0	431,000	0
	Copper	0	12,760	140	12,900	190,684	135	11,580
	Hydrogen Fluoride	0	0	106,000	106,000	0	113,000	0
	Manganese Compounds	0	1,800	34	1,834	1,800		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
		Sum Of Water: 0	Sum Of Land: 14,560	Sum Of Air: 516,189	Sum Of 99 Releases: 530,749	Sum Of 99Transfer: 204,647		
Varicast Inc - Vancouver	Manganese	0	0	500	500	2,828	500	3,325
Vinings Ind Inc - Washougal	Ammonia	0	0	87	87	0	248	0
	Arsenic Compounds	0	0	1	1	0	1	0
	Carbon Disulfide	3	0	17,007	17,010	2	10,331	5
	Chromium Compounds	0	0	1	1	0	1	0
	Copper Compounds	0	0	1	1	0	1	0
	Dimethylamine	7	0	9	16	0	12	0
	Glycol Ethers	0	0	1	1	0		
	Metham Sodium	40	0	5,007	5,047	7,984	3,393	2,951
	Sodium Dimethyldithiocarbamate	4	0	153	157	216	181	149
		Sum Of Water: 54	Sum Of Land: 0	Sum Of Air: 22,767	Sum Of 99 Releases: 22,821	Sum Of 99Transfer: 11,030		
Wafertech Llc - Camas	Catechol	0	5	38	43	19,603		
	Hydrogen Fluoride	0	5	454	459	3,140	425	1,880
	N-Methyl-2-Pyrrolidone	0	5	945	950	82,712	245	18,570
Wafertech Llc - Camas	Nitric Acid	0	0	340	340	1,638	5	1,327
	Ozone	0	5	832	837	0		
		Sum Of Water: 0	Sum Of Land: 20	Sum Of Air: 2,609	Sum Of 99 Releases: 2,629	Sum Of 99Transfer: 107,093		
County Totals		Sum Of Water1: 531,1777	Sum Of Land1: 17,405	Sum Of Air1: 1,845,230	Sum Of 99 Releases1: 2,393,812	Sum Of 99Transfer1: 1,782,204		
Cowlitz								
Bf Goodrich - Kalama	Acetaldehyde	0	0	687	687	0	490	0
	Ammonia	1,455	783	6,254	8,492	690	5,060	810
	Benzene	0	0	36,186	36,186	2,165	26,700	3,736
	Biphenyl	0	0	3,465	3,465	3,404	2,150	3,468
	Chromium Compounds	1	17	0	18	4,890		
	Cobalt Compounds	82	1	112	195	10,642	921	9,773
	Copper Compounds	29	3	749	781	216,063	949	187,875
	Formic Acid	0	0	772	772	0		
	Methanol	0	0	50,743	50,743	17	25,200	21
	Phenol	1	0	7,221	7,222	880	7,804	1,705
	Toluene	0	0	99,477	99,477	348	86,000	705
		Sum Of Water: 1,568	Sum Of Land: 804	Sum Of Air: 205,666	Sum Of 99 Releases: 208,038	Sum Of 99Transfer: 239,099		
Bhp Coated Steel Corporation - Kalama	1,2,4-Trimethylbenzene	0	0	46	46	10,204	1,075	750
	Chromium Compounds	0	0	3	3	1,229		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Ethylbenzene	0	0	8	8	2,358		
	Glycol Ethers	0	0	68	68	19,631		
	N-Butyl Alcohol	0	0	10	10	2,798	679	
	Naphthalene	0	0	9	9	2,778	705	750
	Xylene (Mixed Isomers)	0	0	39	39	11,065	701	750
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 183	Sum Of 99 Releases: 183	Sum Of 99Transfer: 50,063		
Clariant Corp - Kalama	Zinc Compounds	0	0	2	2	0	2	0
Cytec Industries, Inc - Longview	Acrylamide	0	0	32	32	228	27	222
Cytec Industries, Inc - Longview	Formaldehyde	0	0	58	58	397	75	562
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 92	Sum Of 99 Releases: 92	Sum Of 99Transfer: 625		
Longview Fibre Company - Longview	Acetaldehyde	0	0	37,005	37,005	0	29,005	0
	Ammonia	11,000	0	38,005	49,005	0	70,250	0
	Barium Compounds	0	0	0	0	24,700	0	21,600
	Catechol	250	0	0	250	0	250	0
	Formaldehyde	750	0	11,005	11,755	0	10,010	0
	Hydrochloric Acid	0	0	88,005	88,005	0		
	Manganese Compounds	0	0	0	0	83,200	0	73,000
	Methanol	0	0	427,200	427,200	0	376,100	0
	Nitrate Compounds	130,000	0	0	130,000	0	65,000	0
	Nitric Acid	0	0	0	0	0	0	0
	Phenol	160	0	3,505	3,665	0	2,955	0
	Zinc Compounds	0	0	0	0	72,500	0	77,000
		Sum Of Water: 142,160	Sum Of Land: 0	Sum Of Air: 604,725	Sum Of 99 Releases: 746,885	Sum Of 99Transfer: 180,400		
Pacific Coating & Laminating – Kelso	Diisocyanates	0	0	250	250	250		
Reynolds Metals Co - Longview	Biphenyl	1	0	285	286	472	232	804
	Chlorine	1,613	0	1,044	2,657	0	2,987	0
	Chromium	2	0	0	2	2,702	4	2,960
	Copper	30	0	4	34	6,844	194	20,256
	Hydrogen Fluoride	0	0	294,596	294,596	0	354,415	0
	Lithium Carbonate	0	0	0	0	0	0	0
	Manganese	7	0	2	9	8,863	47	27,614
	Phenanthrene	1	0	1,277	1,278	2,184	1,284	1,657
	Polycyclic Aromatic Compounds	89	0	30,753	30,842	1,206,390	29,307	1,614,040
	Quinoline	1	0	381	382	633	310	1,078
		Sum Of Water: 1,744	Sum Of Land: 0	Sum Of Air: 328,592	Sum Of 99 Releases: 330,336	Sum Of 99Transfer: 1,228,338		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Solvay Interlox, Inc - Longview	Naphthalene	0	4	208	212	659	219	696
	Nitrate Compounds	0	0	0	0	89,422	0	
	Nitric Acid	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 4	Sum Of Air: 208	Sum Of 99 Releases: 212	Sum Of 99Transfer: 90,081		
Weyerhaeuser Company - Longview	Acetaldehyde	4,277	0	471,717	475,994	0	470,144	0
	Ammonia	9,424	0	126,471	135,895	0	107,367	0
	Barium Compounds	6,731	0	346	7,077	44,781	7,355	45,863
	Catechol	92	0	0	92	0	92	0
	Chlorine	13,412	0	1,164	14,576	0	15,357	0
	Chlorine Dioxide	0	0	639	639	0	1,620	0
	Chloroform	1,099	0	33,493	34,592	0		
	Cresol (Mixed Isomers)	211	0	3,561	3,772	0	15,358	0
	Dichloromethane	1	0	34,806	34,807	0	31,686	0
	Formaldehyde	2,904	0	72,140	75,044	0	115,478	0
	Hydrochloric Acid	0	0	47,342	47,342	0		
	Manganese Compounds	42,947	0	1,002	43,949	54,969	45,027	51,659
	Methanol	8,846	0	1,397,298	1,406,144	250	2,009,787	500
	Methyl Ethyl Ketone	118	0	170,500	170,618	660	173,466	927
	Nitrate Compounds	404	0	0	404	0	413	0
	Phenol	0	0	82,725	82,725	0	82,236	0
	Styrene	193	0	35,857	36,050	0	37,085	0
	Sulfuric Acid	0	0	52,697	52,697	0	53,649	0
	Zinc Compounds	16,604	0	1,995	18,599	29,914	18,761	30,372
		Sum Of Water: 107,263	Sum Of Land: 0	Sum Of Air: 2,533,753	Sum Of 99 Releases: 2,641,016	Sum Of 99Transfer: 130,574		
County Totals		Sum Of Water1: 252,735	Sum Of Land1: 808	Sum Of Air1: 3,673,219	Sum Of 99 Releases1: 3,926,762	Sum Of 99Transfer1: 1,919,180		
Douglas								
Van Doren Sales Inc – East Wenatchee	Nickel	0	0	10,172	10,172	4,625	11,585	9,847
County Totals		Sum Of Water1: 0	Sum Of Land1: 0	Sum Of Air1: 10,172	Sum Of 99 Releases1: 10,172	Sum Of 99Transfer1: 4,625		
Ferry								
Kettle River Operations Mill - Republic	Copper Compounds	0	100,000	5	100,005	0	57,005	0
	Cyanide Compounds	0	13,000	0	13,000	11	16,000	23
	Lead Compounds	0	200,000	5	200,005	0	250,005	0
	Manganese	0	18,005	17	18,022	6	15,020	4
	Nickel	0	7,405	10	7,415	0		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Nitrate Compounds	0	140,005	10	140,015	0	170,015	0
		Sum Of Water: 0	Sum Of Land: 478,415	Sum Of Air: 10,219	Sum Of 99 Releases: 488,634	Sum Of 99Transfer: 4,642		
County Totals		Sum Of Water1: 0	Sum Of Land1: 478,415	Sum Of Air1: 47	Sum Of 99 Releases1: 478,462	Sum Of 99Transfer1: 17		
Franklin								
Lamb Weston - Connell	Chlorine	0	0	0	0	0	0	0
	Nitrate Compounds	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 0		
Lamb-Weston, Inc -Pasco	Ammonia	0	15,440	5,400	20,840	16,070	22,940	18,260
	Chlorine	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 15,440	Sum Of Air: 5,400	Sum Of 99 Releases: 20,840	Sum Of 99Transfer: 16,070		
Northwest Terminalling Company - Pasco	1,2,4-Trimethylbenzene	0	0	107	107	0	110	13
	Benzene	0	0	1,880	1,880	24	2,562	19
	Ethylbenzene	0	0	198	198	3	259	7
	Methyl Tert-Butyl Ether	0	0	422	422	116	465	62
	N-Hexane	0	0	3,788	3,788	0	5,046	7
	Toluene	0	0	2,930	2,930	44	3,791	48
	Xylene (Mixed Isomers)	0	0	1,246	1,246	16	1,522	34
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 10,571	Sum Of 99 Releases: 10,571	Sum Of 99Transfer: 203		
Tidewater Terminal Co -Pasco	1,2,4-Trimethylbenzene	0	0	122	122	0	857	1,150
	1,3-Dichloropropylene	0	0	195	195	0	145	0
	Ammonia	0	0	17,301	17,301	0	18,084	0
Tidewater Terminal Co - Pasco	Benzene	0	0	917	917	0	1,679	740
	Chloropicrin	0	0	4	4	0	4	0
	Ethylbenzene	0	0	122	122	0	646	738
	Metham Sodium	0	0	3,627	3,627	5,970	824	1,320
	N-Hexane	0	0	1,098	1,098	0	2,019	828
	Nitrate Compounds	0	0	0	0	0	0	0
	Toluene	0	0	1,218	1,218	0	3,773	3,318
	Trans-1,3-Dichloropropene	0	0	85	85	0	70	0
	Xylene (Mixed Isomers)	0	0	611	611	0	3,547	3,298
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 25,300	Sum Of 99 Releases: 25,300	Sum Of 99Transfer: 5,970		
County Totals		Sum Of Water1: 0	Sum Of Land1: 15,440	Sum Of Air1: 41,271	Sum Of 99 Releases1: 56,711	Sum Of 99Transfer1: 22,243		
Grant								
Advanced Silicon Materials Inc –	Chlorodifluoromethane	0	0	12,289	12,289	0		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Moses Lake								
	Hydrochloric Acid	0	0	2,174	2,174	0	2,106	0
	Nitrate Compounds	0	0	0	0	49,063	0	45,319
	Nitric Acid	0	0	275	275	0	55	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 14,738	Sum Of 99 Releases: 14,738	Sum Of 99Transfer: 49,063		
Nestle Usa – Moses Lake	Ammonia	0	0	6,500	6,500	38,600		
County Totals		Sum Of Water1: 0	Sum Of Land1: 0	Sum Of Air1: 21,238	Sum Of 99 Releases1: 21,238	Sum Of 99Transfer1: 87,663		
Grays Harbor								
Howard Moe Enterprises, Inc - Hoquiam	Styrene	0	0	4,678	4,678	0	4,393	0
Merinos Seafoods Inc - Westport	Chlorodifluoromethane	0	0	250	250	0		
Morton Intl. Inc - Elma	Methanol	0	0	86,736	86,736	13,119	95,676	15,311
Westport Shipyard Inc - Westport	Styrene	0	0	22,214	22,214	0	19,777	0
Weyerhaeuser Pulp Mill - Cosmopolis	Acetaldehyde	250	0	9,300	9,550	0	20,000	0
	Ammonia	600	0	250	850	0	1,350	0
Weyerhaeuser Pulp Mill - Cosmopolis	Chlorine	0	0	4,400	4,400	0	4,405	0
	Chlorine Dioxide	0	0	2,405	2,405	0	2,505	0
	Formic Acid	1,000	0	0	1,000	0	0	0
	Glycol Ethers	300	0	0	300			
	Manganese Compounds	48,000	0	1,100	49,100	20,000	51,100	19,000
	Methanol	250	0	47,250	47,500	0	172,050	0
	Nitrate Compounds	22,000	0	0	22,000	0	18,000	
	Nitric Acid	0	0	0	0	0	0	0
		Sum Of Water: 72,400	Sum Of Land: 0	Sum Of Air: 185,083	Sum Of 99 Releases: 257,483	Sum Of 99Transfer: 71,719		
County Totals		Sum Of Water1: 72,400	Sum Of Land1: 0	Sum Of Air1: 178,583	Sum Of 99 Releases1: 250,983	Sum Of 99Transfer1: 33,119		
Jefferson								
Port Townsend Paper Corp – Port Townsend	Acetaldehyde	800	0	5,900	6,700	0	7,600	0
	Ammonia	3,900	0	61,250	65,150	0	48,350	0
	Barium Compounds	3,900	7,500	250	11,650	0	7,050	0
	Catechol	30	0	0	30	0	50	0
	Hydrochloric Acid	0	0	246,000	246,000	0		
	Manganese Compounds	0	46,000	750	46,750	0	35,750	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Methanol	5,600	0	95,750	101,350	0	110,300	0
		Sum Of Water: 14,230	Sum Of Land: 53,500	Sum Of Air: 409,900	Sum Of 99 Releases: 477,630	Sum Of 99Transfer: 0		
County Totals		Sum Of Water1: 14,230	Sum Of Land1: 53,500	Sum Of Air1: 409,900	Sum Of 99 Releases1: 477,630	Sum Of 99Transfer1: 0		
King								
Ace Galvanizing Inc - Seattle	Zinc Compounds	0	0	1,500	1,500	353,340	1,500	284,930
Alaskan Copper Works - Seattle	Chromium Compounds	0	0	15	15	8,025	15	7,687
	Manganese Compounds	0	0	5	5	505	5	255
	Nickel Compounds	0	0	5	5	755	5	6,336
	Nitric Acid	0	0	5	5	0	5	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 1,530	Sum Of 99 Releases: 1,530	Sum Of 99Transfer: 362,625		
American Millwork Inc	Methyl Ethyl Ketone	0	0	146,000	146,000	0	115,000	0
American Millwork Inc	Methyl Isobutyl Ketone	0	0	59,000	59,000	0	15,000	0
	Toluene	0	0	154,000	154,000	0	131,000	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 359,000	Sum Of 99 Releases: 359,000	Sum Of 99Transfer: 0		
American National Can Company - Kent	Glycol Ethers	0	0	98,493	98,493	1,088		
	Hydrogen Fluoride	0	0	29	29	0	22	0
	Manganese	0	0	0	0	55	0	192
	N-Butyl Alcohol	0	0	81,931	81,931	336	109,148	270
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 180,453	Sum Of 99 Releases: 180,453	Sum Of 99Transfer: 1,479		
Arco Products Company - Seattle	1,2,4-Trimethylbenzene	0	0	35	35	0	34	0
	Benzene	0	0	284	284	2	305	294
	Ethylbenzene	0	0	75	75	0	105	0
	N-Hexane	0	0	1,057	1,057	0	974	0
	Toluene	0	0	1,073	1,073	4	1,039	57
	Xylene (Mixed Isomers)	0	0	396	396	0	517	74
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 2,920	Sum Of 99 Releases: 2,920	Sum Of 99Transfer: 6		
Arima Marine International - Auburn	Styrene	0	0	8,462	8,462	0	8,078	0
Art Brass Plating Inc - Seattle	Trichloroethylene	0	0	12,300	12,300	750	15,550	750
Asko Processing, Inc - Seattle	Nitric Acid	0	0	0	0	0	0	0
	Trichloroethylene	0	0	12,702	12,702	610	12,962	597
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 33,464	Sum Of 99 Releases: 33,464	Sum Of 99Transfer: 1,360		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Ball Foster Glass Container Co - Seattle	Chromium Compounds	0	0	5	5	0	5	0
Ball Metal Beverage Container - Kent	Glycol Ethers	0	0	149,000	149,000	530		
	Hydrogen Fluoride	0	0	89	89	0	89	0
	N-Butyl Alcohol	0	0	132,000	132,000	80	135,000	100
	Sulfuric Acid	0	0	58	58	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 281,152	Sum Of 99 Releases: 281,152	Sum Of 99Transfer: 610		
Ballard Brass - Seattle	Copper Compounds	0	0	0	0	4,495	0	5,148
Bcag Fabrication Division - Auburn	Chromium Compounds	0	0	16	16	171,348	66	132,172
	Copper	0	0	0	0	931,497	0	737,185
	Methyl Ethyl Ketone	0	0	27,000	27,000	9,074	35,000	11,396
	Methyl Isobutyl Ketone	0	0	14,200	14,200	1,993	5,800	5,925
	Nickel	0	0	0	0	52,285	0	37,352
	Nitrate Compounds	0	0	0	0	330,000	0	520,000
	Nitric Acid	0	0	0	0	164,960	0	559,108
	Sec-Butyl Alcohol	0	0	17,001	17,001	3,731	9,900	5,625
	Toluene	0	0	24,800	24,800	7,524	8,010	19,097
	Xylene (Mixed Isomers)	0	0	6,500	6,500	3,132		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 89,517	Sum Of 99 Releases: 89,517	Sum Of 99Transfer: 1,680,039		
Birmingham Steel Corp - Seattle	Chromium Compounds	0	0	0	0	0		
	Lead Compounds	0	0	1,646	1,646	305,201	1,436	241,886
	Manganese Compounds	0	0	2,201	2,201	408,008	2,454	413,483
	Nickel Compounds	0	0	17	17	3,229	19	3,272
	Zinc Compounds	0	0	21,827	21,827	4,046,928	22,334	3,763,173
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 25,691	Sum Of 99 Releases: 25,691	Sum Of 99Transfer: 4,763,366		
Boeing Commercial Airplane Gro - Renton	Chromium	0	0	5	5	7,400	5	11,705
	Copper	0	0	0	0	62,805	0	115,535
	Diethanolamine	0	0	1,100	1,100	9,900		
Seattle	Diethanolamine	0	0	1,950	1,950	15,000		
	Diethanolamine	0	0	0	0	750		
Renton	Freon 113	0	0	20,005	20,005	250	20,000	2,900
Seattle	Glycol Ethers	0	0	2,050	2,050	16,250		
	Glycol Ethers	0	0	500	500	0		
Renton	Glycol Ethers	0	0	2,850	2,850	18,500		
Boeing Commercial Airplane	Manganese	0	0	0	0	22,700	85	20,250

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Gro - Renton								
	Manganese Compounds	0	0	5	5	3,950	0	6,510
Seattle	Methyl Ethyl Ketone	0	0	41,250	41,250	3,000	31,250	17,950
Renton	Methyl Ethyl Ketone	250	0	40,000	40,250	15,300	43,000	15,400
Seattle	Methyl Ethyl Ketone	0	0	1,000	1,000	500	1,850	1,750
	Methyl Isobutyl Ketone	0	0	500	500	500	1,000	1,270
Renton	Methyl Isobutyl Ketone	0	0	13,300	13,300	8,655	20,600	5,950
Seattle	Methyl Isobutyl Ketone	0	0	5,350	5,350	8,200	3,250	8,865
	Naphthalene	0	0	250	250	0	250	0
Renton	Naphthalene	0	0	5	5	0	5	0
Seattle	Naphthalene	0	0	250	250	1,000	250	250
Renton	Toluene	250	0	52,200	52,450	18,055	53,000	19,050
		Sum Of Water: 500	Sum Of Land: 0	Sum Of Air: 182,570	Sum Of 99 Releases: 183,070	Sum Of 99Transfer: 212,715		
Boeing Space Center - Kent	Chromium	0	0	0	0	3,972	0	6,335
	Copper	0	0	16	16	10,515	30	20,259
	Nickel	0	0	0	0	7,067	1	18,790
	Nitrate Compounds	0	0	0	0	93,790	0	80,200
	Nitric Acid	0	0	170	170	4,017	130	3,128
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 186	Sum Of 99 Releases: 186	Sum Of 99Transfer: 119,361		
Borden Chemical, Inc - Kent	Formaldehyde	0	0	568	568	804	1,740	750
	Methanol	0	0	682	682	500	3,683	250
	Phenol	0	0	211	211	764	255	750
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 1,461	Sum Of 99 Releases: 1,461	Sum Of 99Transfer: 2,068		
Burlington Environmental Inc – Kent	Copper Compounds	0	0	0	0	86,960		
Seattle	Ethylene Glycol	0	0	0	0	315,570	0	728,678
Kent	Lead	0	0	0	0	146,993		
	Mercury Compounds	0	0	0	0	4,458		
Burlington Environmental Inc – Seattle	Nitrate Compounds	0	0	0	0	21,127		
Kent	Zinc Compounds	0	0	0	0	57,504		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 632,612		
Cambridge Industries - Auburn	Styrene	0	0	94,488	94,488	250	114,497	19,252
Capital Ind. Inc - Seattle	Methyl Isobutyl Ketone	0	0	13,533	13,533	158	12,999	169
Chemcentral/Seattle - Kent	Di(2-Ethylhexyl) Phthalate	250	5	10	265	3,155		
	Dibutyl Phthalate	5	0	10	15	500		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Methyl Ethyl Ketone	5	0	1,000	1,005	255	645	0
	Xylene (Mixed Isomers)	5	0	500	505	505	2,220	0
		Sum Of Water: 265	Sum Of Land: 5	Sum Of Air: 109,541	Sum Of 99 Releases: 109,811	Sum Of 99Transfer: 4,823		
Circuit Services, Inc - Bellevue	Copper	0	0	1	1	52,711	1	41,776
	Nitrate Compounds	0	0	1	1	5,161	1	4,546
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 2	Sum Of 99 Releases: 2	Sum Of 99Transfer: 57,872		
Coatings Unlimited Inc - Kent	Methyl Ethyl Ketone	0	0	2,852	2,852	3,664	2,852	1,368
Darigold - Issaquah	Nitric Acid	0	0	0	0	182	0	381
Darigold - Rainier	Ammonia	0	0	1,582	1,582	14,238	4,577	4,119
Davis Wire Corporation - Kent	Lead	0	0	0	0	318	0	490
Duwamish Shipyard Inc - Seattle	Xylene (Mixed Isomers)	0	0	10,800	10,800	0		
Dyno Battery Inc - Seattle	Lead	0	0	19	19	0	27	0
	Sulfuric Acid	0	0	114	114	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 15,367	Sum Of 99 Releases: 15,367	Sum Of 99Transfer: 18,402		
Equilon Lubricants - Seattle	Ethylbenzene	0	0	5	5	0	500	250
	Xylene (Mixed Isomers)	0	0	5	5	0	500	500
	Zinc Compounds	5	0	0	5	0		
		Sum Of Water: 5	Sum Of Land: 0	Sum Of Air: 10	Sum Of 99 Releases: 15	Sum Of 99Transfer: 0		
Equilon Terminal - Seattle	1,2,4-Trimethylbenzene	0	0	500	500	1,000	500	250
	Benzene	0	0	500	500	250	500	250
	Ethylbenzene	0	0	500	500	750	500	250
	N-Hexane	0	0	1,500	1,500	750	1,000	250
	Toluene	0	0	1,500	1,500	1,000	1,500	500
	Xylene (Mixed Isomers)	0	0	500	500	750	500	500
	Zinc Compounds	250	0	0	250	0		
		Sum Of Water: 250	Sum Of Land: 0	Sum Of Air: 5,000	Sum Of 99 Releases: 5,250	Sum Of 99Transfer: 4,500		
Exotic Metals Forming Co - Kent	Nitric Acid	0	0	250	250	19,000	250	17,000
Fisher Mills Inc - Seattle	Chlorine	0	0	0	0	0	0	0
Foamex Lp - Kent	Toluene Diisocyanate (Mixed Isomers)	0	0	346	346	0	586	80
Formula Corp - Seattle	Glycol Ethers	0	0	750	750	750		
Gaco Western, Inc - Tukwila	Methyl Isobutyl Ketone	0	0	943	943	1,500	798	1,000
	Toluene	0	0	536	536	2,709		
	Xylene (Mixed Isomers)	0	0	3,029	3,029	1,000	2,915	500
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 5,854	Sum Of 99 Releases:	Sum Of 99Transfer:		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
					5,854	24,959		
Genie Inds. Inc. – Redmond (Scissors)	Glycol Ethers	0	0	25,236	25,236	3,114		
Genie Inds. Inc. Big Boom - Redmond	Methyl Ethyl Ketone	0	0	18,889	18,889	0		
	Toluene	0	0	0	0	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 44,125	Sum Of 99 Releases: 44,125	Sum Of 99Transfer: 3,114		
Great Western Chemical Company – Seattle	Methanol	0	0	250	250	0	250	500
Haworth/Lunstead Operations - Kent	Methanol	0	0	11,947	11,947	3,361	12,176	3,426
	Toluene	0	0	12,200	12,200	3,433	13,201	3,715
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 24,397	Sum Of 99 Releases: 24,397	Sum Of 99Transfer: 6,794		
Hexcel Corp - Kent	Styrene	0	0	3,300	3,300	3,500	2,420	1,400
Hexcel Corp - Kent	Methyl Ethyl Ketone	0	0	13,500	13,500	5,100	20,184	7,112
Hussmann Corporation - Seattle	1,1-Dichloro-1-Fluoroethane	0	0	2,032	2,032	0	1,472	0
	Diisocyanates	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 18,832	Sum Of 99 Releases: 18,832	Sum Of 99Transfer: 8,600		
Hytek Finishes Co - Kent	Methyl Ethyl Ketone	0	0	10,000	10,000	1,230	12,200	2,431
	Nitrate Compounds	0	0	0	0	28,762	0	33,575
	Nitric Acid	0	0	10	10	0	10	305
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 10,010	Sum Of 99 Releases: 10,010	Sum Of 99Transfer: 29,992		
Immunex Corp - Seattle	Acetonitrile	0	0	0	0	12,165		
Industrial Plating Corp - Seattle	Copper Compounds	0	0	264	264	405		
	Zinc Compounds	0	0	325	325	1,258	271	2,141
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 589	Sum Of 99 Releases: 589	Sum Of 99Transfer: 13,828		
Johns Manville International - Kent	1,1-Dichloro-1-Fluoroethane	0	0	39,243	39,243	1,829	35,929	5,123
	Chlorodifluoromethane	0	0	4,724	4,724	261	5,007	325
	Diisocyanates	0	0	49	49	0	76	139
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 44,016	Sum Of 99 Releases: 44,016	Sum Of 99Transfer: 2,090		
Jorgensen Forge Corporation - Tukwila	Manganese	0	0	0	0	48,000	0	197,000
K2 Corporation - Vashon	Diisocyanates	0	0	5	5	6,074	0	515
Kenworth Truck Company -	Ethylene Glycol	0	0	82	82	11,000	86	15,000

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Renton								
	Glycol Ethers	0	0	8,840	8,840	2,900		
	Methyl Ethyl Ketone	0	0	40,800	40,800	32,000	45,300	48,000
	Toluene	0	0	49,600	49,600	36,000	56,000	54,000
	Xylene (Mixed Isomers)	0	0	17,500	17,500	5,100	22,200	6,600
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 116,827	Sum Of 99 Releases: 116,827	Sum Of 99Transfer: 141,074		
Lilly Industries, Inc - Seattle	Ethylbenzene	0	0	216	216	935	221	853
Lilly Industries, Inc - Seattle	Methanol	0	0	871	871	0	1,249	0
	Methyl Ethyl Ketone	0	0	413	413	10,015		
	Methyl Isobutyl Ketone	0	0	816	816	8,412		
	N-Butyl Alcohol	0	0	2,088	2,088	3,471	1,596	3,169
	Toluene	0	0	1,592	1,592	6,943	2,523	6,337
	Xylene (Mixed Isomers)	0	0	3,776	3,776	4,406	3,333	4,022
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 9,772	Sum Of 99 Releases: 9,772	Sum Of 99Transfer: 34,182		
Machinists Dsr, Inc. - Seattle	Methyl Ethyl Ketone	0	0	18,004	18,004	250	18,004	500
	Xylene (Mixed Isomers)	0	0	21,769	21,769	250	21,769	500
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 39,773	Sum Of 99 Releases: 39,773	Sum Of 99Transfer: 500		
Mikron Industries Inc - Kent	Dichloromethane	0	0	11,400	11,400	15,100	16,600	33,300
Modine Aftermarket Holdings - Seattle	Copper	0	0	1	1	32,512	1	40,330
Newcastle Brick Plant - Renton	Hydrogen Fluoride	0	0	52,110	52,110	0	58,652	0
Non-Ferrous Metals Inc – Seattle	Lead	0	0	255	255	0		
Northlake Cabinet Corporation - Woodinville	Toluene	0	0	11,179	11,179	0		
Paccar, Seattle - Tukwila	Ethylene Glycol	0	0	14	14	2,813	13	600
	Methyl Ethyl Ketone	0	0	35,237	35,237	81,644	18,350	31,050
	Toluene	0	0	41,088	41,088	87,743	21,325	35,000
	Xylene (Mixed Isomers)	0	0	8,020	8,020	3,041		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 159,304	Sum Of 99 Releases: 159,304	Sum Of 99Transfer: 222,853		
Protective Coatings, Inc – Kent	Methyl Ethyl Ketone	5	0	12,250	12,255	14,205	13,355	16,405
	Nitric Acid	5	0	1,000	1,005	5	1,005	5
	Toluene	5	0	1,000	1,005	5	1,005	5
	Trichloroethylene	5	0	12,950	12,955	2,305	16,705	9,105
	Xylene (Mixed Isomers)	5	0	500	505	5	505	5
		Sum Of Water: 25	Sum Of Land: 0	Sum Of Air: 27,700	Sum Of 99 Releases: 27,725	Sum Of 99Transfer: 16,525		
Red Dot Corp – Seattle	Trichloroethylene	0	0	25,080	25,080	250	32,340	250

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Romac Ind Inc – Seattle	Chromium	0	0	2	2	8	1	250
	Manganese	0	0	5	5	0	4	0
	Nickel	0	0	2	2	8	4	69
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 25,089	Sum Of 99 Releases: 25,089	Sum Of 99Transfer: 266		
Rudd Co. Inc - Seattle	Di(2-Ethylhexyl) Phthalate	0	0	32	32	0	630	0
	Ethylbenzene	0	0	840	840	300	630	500
	Glycol Ethers	0	0	1,560	1,560	150		
	Methanol	0	0	1,400	1,400	0	1,500	0
	Methyl Ethyl Ketone	0	0	2,000	2,000	600	2,200	130
	Methyl Isobutyl Ketone	0	0	4,900	4,900	2,700	5,000	240
	N-Butyl Alcohol	0	0	3,700	3,700	0	3,700	500
	Toluene	0	0	7,100	7,100	25,500	7,600	23,200
	Xylene (Mixed Isomers)	0	0	4,700	4,700	4,100	4,700	5,000
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 26,232	Sum Of 99 Releases: 26,232	Sum Of 99Transfer: 33,350		
Safeway Inc - Bellevue	Nitric Acid	0	0	0	0	0		
Scott Galvanizing – Seattle	Zinc Compounds	0	0	0	0	438,300	0	175,750
Sound Propeller Services Inc – Seattle	Chromium	0	0	250	250	250	250	2,100
	Nickel	0	0	250	250	250	250	750
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 500	Sum Of 99 Releases: 500	Sum Of 99Transfer: 438,800		
Starrow Ents – Auburn	Styrene	0	0	1,000	1,000	0		
Todd Pacific Shipyards Corp - Seattle	Copper Compounds	500	0	1,555	2,055	793	2,078	3,775
	N-Butyl alcohol	0	0	18,029	18,029	472	22,246	4,906
	Xylene (Mixed Isomers)	0	0	11,453	11,453	11,718	12,237	4,840
	Zinc (Fume Or Dust)	500	0	48	548	246	1,238	2,383
		Sum Of Water: 1,000	Sum Of Land: 0	Sum Of Air: 32,085	Sum Of 99 Releases: 33,085	Sum Of 99Transfer: 13,229		
Tosco, Renton Terminal - Renton	1,2,4-rimethyl-benzene	0	0	975	975	250	1,210	200
	Benzene	0	0	1,370	1,370	250	1,311	218
	Cyclohexane	0	0	835	835	250	938	161
	Ethylbenzene	0	0	1,035	1,035	250	1,210	200
	N-Hexane	0	0	1,910	1,910	500	1,916	329
	Toluene	0	0	2,110	2,110	1,250	2,118	369
	Xylene (Mixed Isomers)	0	0	3,150	3,150	1,250	3,328	564
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 11,385	Sum Of 99 Releases: 11,385	Sum Of 99Transfer: 4,000		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Trim Systems – Seattle	Dichloromethane	0	0	15,147	15,147	280	10,250	5,170
	Diisocyanates	0	0	0	0	0	0	0
	Ethylene Glycol	0	0	0	0	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 15,147	Sum Of 99 Releases: 15,147	Sum Of 99Transfer: 280		
Ttm Tech Redmond	Ammonia	0	0	6,435	6,435	113,325	1,812	90,631
	Copper	0	0	0	0	408,473	0	18,195
	Formaldehyde	0	0	10,300	10,300	0	3,593	250
	Methanol	0	0	731	731	0		
	Nitric Acid	0	0	0	0	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 17,466	Sum Of 99 Releases: 17,466	Sum Of 99Transfer: 521,798		
Universal Mfg Corp - Woodinville	Copper	0	0	2	2	21,573	2	25,786
	Nitrate Compounds	0	0	255	255	6,476	255	7,117
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 257	Sum Of 99 Releases: 257	Sum Of 99Transfer: 28,049		
Van Waters & Rogers Inc - Kent	Di(2-Ethylhexyl) Phthalate	0	0	98	98	841	255	750
	Methanol	0	0	1,095	1,095	523	1,000	750
	Methyl Ethyl Ketone	0	0	771	771	363	1,265	1,250
		Sum Of Water:	Sum Of Land:	Sum Of Air:	Sum Of 99 Releases:	Sum Of 99Transfer:		
Viox Corporation – Seattle	Lead Compounds	0	0	243	243	989	134	28,288
Wasser High-Tech Coatings – Kent	1,2,4-Trimethylbenzene	0	0	750	750	250		
Wasser High-Tech Coatings - Kent	Aluminum (Fume Or Dust)	0	0	250	250	250		
	Methyl Isobutyl Ketone	0	0	250	250	250	71	564
	Xylene (Mixed Isomers)	0	0	5,300	5,300	1,100	3,400	17,639
	Zinc (Fume Or Dust)	0	0	6,642	6,642	3,500	1,052	564
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 13,435	Sum Of 99 Releases: 13,435	Sum Of 99Transfer: 6,339		
Wescor Graphics Corp - Seattle	N-Butyl Alcohol	0	0	0	0	2,605	1,508	3,341
	Tetrachloroethylene	0	17,059	0	17,059	29,431	17,059	37,783
		Sum Of Water: 0	Sum Of Land: 17,059	Sum Of Air: 0	Sum Of 99 Releases: 17,059	Sum Of 99Transfer: 32,036		
Western Pneumatic Tube Co - Kirkland	Hydrogen Fluoride	0	0	0	0	0	0	0
	Nitrate Compounds	0	0	0	0	42,556	0	43,766
	Nitric Acid	0	0	0	0	0	0	0
	Trichloroethylene	0	0	49,165	49,165	4,503	44,633	5,623
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 49,165	Sum Of 99 Releases: 49,165	Sum Of 99Transfer: 47,059		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
County Totals		Sum Of Water1: 2,045	Sum Of Land1: 17,064	Sum Of Air1: 1,981,788	Sum Of 99 Releases1: 2,000,897	Sum Of 99Transfer1: 9,493,282		
Kitsap								
U.S. Dod, U.S. Navy, Puget Sound - Bremerton	Chromium	88	0	89	177	2,683	3,703	2,678
	Copper	637	0	385	1,022	16,565	4,599	5,421
	Copper Compounds	637	0	5,750	6,387	21,076	18,964	10,022
	Lead	593	0	2	595	20,140	4,210	24,159
	Manganese	106	0	96	202	3,008	1,891	2,699
	N-Butyl Alcohol	0	0	22,221	22,221	14,814	28,395	18,930
	Nickel	1,106	0	165	1,271	22,440	9,677	12,415
	Xylene (Mixed Isomers)	1	0	17,325	17,326	11,559	19,351	12,903
	Zinc Compounds	2,156	0	2,342	4,498	23,404	15,949	20,336
		<i>Sum Of Water: 5,324</i>	<i>Sum Of Land: 0</i>	<i>Sum Of Air: 48,375</i>	<i>Sum Of 99 Releases: 53,699</i>	<i>Sum Of 99Transfer: 135,689</i>		
County Totals		Sum Of Water1: 5,324	Sum Of Land1: 0	Sum Of Air1: 48,375	Sum Of 99 Releases1: 53,699	Sum Of 99Transfer1: 135,689		
Klickitat								
Goldendale Aluminum Company - Goldendale	Carbonyl Sulfide	0	0	95,000	95,000	0	93,000	0
Goldendale Aluminum Company - Goldendale	Hydrogen Fluoride	0	0	53,200	53,200	0	51,600	0
		<i>Sum Of Water: 0</i>	<i>Sum Of Land: 0</i>	<i>Sum Of Air: 148,200</i>	<i>Sum Of 99 Releases: 148,200</i>	<i>Sum Of 99Transfer: 0</i>		
County Totals		Sum Of Water1: 0	Sum Of Land1: 0	Sum Of Air1: 148,200	Sum Of 99 Releases1: 148,200	Sum Of 99Transfer1: 0		
Lewis								
Centralia Power Plant - Centralia	Arsenic Compounds	14	11,692	56	11,762	116	20,502	158
	Barium Compounds	429	681,069	857	682,355	15,053	1,260,320	32,570
	Chlorine	0	0	10	10	0	10	0
	Chromium Compounds	3	83,711	56	83,770	1,168	155,922	2,485
	Cobalt Compounds	16	44,458	150	44,624	1,371	116,141	2,714
	Copper Compounds	15	88,388	136	88,539	3,622	222,573	8,446
	Hydrochloric Acid	0	0	226,726	226,726	0		
	Hydrogen Fluoride	0	0	598,898	598,898	0	645,368	0
	Lead Compounds	6	55,971	98	56,075	1,735	78,764	1,581
	Manganese Compounds	92	439,029	349	439,470	3,171	783,027	8,066
	Nickel Compounds	32	104,915	21	104,968	3,597	139,425	3,199
	Sulfuric Acid	0	0	201,512	201,512	0		
	Zinc Compounds	20	274,115	220	274,355	18,986	626,114	28,852

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
		Sum Of Water: 627	Sum Of Land: 1,783,348	Sum Of Air: 1,029,089	Sum Of 99 Releases: 2,813,064	Sum Of 99Transfer: 48,819		
Darigold - Chehalis	Ammonia	0	0	6,420	6,420	0		
	Nitrate Compounds	0	0	0	0	0	0	0
	Nitric Acid	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 6,420	Sum Of 99 Releases: 6,420	Sum Of 99Transfer: 0		
Foseco Inc - Chehalis	Aluminum (Fume Or Dust)	0	0	336	336	0	564	4
	Copper Compounds	0	0	14	14	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 350	Sum Of 99 Releases: 350	Sum Of 99Transfer: 0		
Quali-Cast Foundry, Inc - Chehalis	Chromium	0	0	250	250	250	250	250
	Manganese	0	0	5	5	250	5	250
	Molybdenum Trioxide	0	0	5	5	250	5	250
Quali-Cast Foundry, Inc - Chehalis	Nickel	0	0	250	250	250	250	250
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 510	Sum Of 99 Releases: 510	Sum Of 99Transfer: 1,000		
County Totals		Sum Of Water1: 627	Sum Of Land1: 1,783,348	Sum Of Air1: 1,036,369	Sum Of 99 Releases1: 2,820,344	Sum Of 99Transfer1: 49,819		
Pend Oreille								
Ponderay Newsprint Company - Usk	Nitrate Compounds	334,000	0	0	334,000	0	281,000	0
County Totals		Sum Of Water1: 334,000	Sum Of Land1: 0	Sum Of Air1: 0	Sum Of 99 Releases1: 334,000	Sum Of 99Transfer1: 0		
Pierce								
Abitibi Consolidated Sales - Steilacoom	Methanol	0	0	11,857	11,857	0	16,190	0
Ace Tank & Equipment - Tacoma	Methyl Ethyl Ketone	0	0	7,108	7,108	9,038		
	Styrene	0	0	5,337	5,337	0		
		Sum Of Water: 334,000	Sum Of Land: 0	Sum Of Air: 24,302	Sum Of 99 Releases: 358,302	Sum Of 99Transfer: 9,038		
American Reinforced Plastics - Tacoma	Styrene	0	0	18,944	18,944	5	16,978	5
Atlas Foundry And Machine Co - Tacoma	Chromium	0	0	255	255	9,250	255	9,105
	Copper	250	0	10	260	755	260	755
	Manganese	5	0	255	260	1,505	260	1,305
	Molybdenum Trioxide	5	0	255	260	1,505	260	1,305

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Nickel	250	0	255	505	5,205	505	4,005
		Sum Of Water: 510	Sum Of Land: 0	Sum Of Air: 19,974	Sum Of 99 Releases: 20,484	Sum Of 99Transfer: 18,225		
Bcag Fabrication Division-Puyallup	Copper	0	0	0	0	191,154	0	183,230
	Nitric Acid	0	0	0	0	140,003	0	358,812
	Toluene	0	0	10,150	10,150	3,268	14,330	1,851
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 10,150	Sum Of 99 Releases: 10,150	Sum Of 99Transfer: 334,425		
Burlington Environmental Inc Tacoma	Dichloromethane	0	0	500	500	27,986	0	27,380
	Nitrate Compounds	0	0	0	0	23,922		
	Nitric Acid	0	0	11	11	0	0	111,963
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 511	Sum Of 99 Releases: 511	Sum Of 99Transfer: 51,908		
Cascade Pole & Lumber Co - Tacoma	Creosote	10	0	1,795	1,805	6,508	1,510	29,112
City Of Tacoma Steam - Tacoma	Barium Compounds	0	1	4	5	6,354	2	5,713
	Hydrochloric Acid	0	0	103,489	103,489	0		
	Lead Compounds	0	2	14	16	8,136	21	5,575
	Manganese Compounds	0	5	20	25	33,705	7	25,317
	Zinc Compounds	0	2	23	25	11,590	13	7,707
		Sum Of Water: 10	Sum Of Land: 10	Sum Of Air: 105,345	Sum Of 99 Releases: 105,365	Sum Of 99Transfer: 66,293		
Dyno Overlays, Inc - Tacoma	Formaldehyde	0	0	7,166	7,166	3,145	7,598	894
	Methanol	0	0	81,997	81,997	2,011	152,241	0
	Phenol	0	0	3,667	3,667	1,929	370	1,176
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 92,830	Sum Of 99 Releases: 92,830	Sum Of 99Transfer: 7,085		
General Plastics Mfg Co - Tacoma	Dichloromethane	0	0	15,582	15,582	930	16,193	901
	Diisocyanates	0	0	5	5	0	5	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 15,587	Sum Of 99 Releases: 15,587	Sum Of 99Transfer: 930		
Girard Custom Coaters, Inc - Tacoma	Ethylbenzene	0	0	9,471	9,471	1,035	10,215	1,135
	Toluene	0	0	9,650	9,650	1,065		
	Xylene (Mixed Isomers)	0	0	53,560	53,560	5,957	53,163	5,907
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 72,681	Sum Of 99 Releases: 72,681	Sum Of 99Transfer: 8,057		
Jci Jones Chemicals. Inc -	Chlorine	0	0	11	11	0	1	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Tacoma								
Kaiser Aluminum, Tacoma Works - Tacoma	Carbonyl Sulfide	0	0	130,000	130,000	0	167,000	0
	Copper	28	0	788	816	139,635	863	114,840
	Hydrogen Fluoride	0	0	84,031	84,031	0	110,200	0
	Lithium Carbonate	0	0	316	316	0	434	0
	Polycyclic Aromatic Compounds	1	0	3,420	3,421	5,300	4,762	2,000
		Sum Of Water: 29	Sum Of Land: 0	Sum Of Air: 218,566	Sum Of 99 Releases: 218,595	Sum Of 99Transfer: 144,935		
Lianga Pacific Inc – Tacoma	Xylene (Mixed Isomers)	0	0	11,630	11,630	0	11,000	0
Nalley's Fine Foods – Tacoma	Ammonia	0	0	0	0	0	0	0
Northcoast Yachts Inc – Tacoma	Styrene	0	0	1,923	1,923	0	1,525	0
	Styrene	0	0	1,923	1,923	0	1,525	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 15,476	Sum Of 99 Releases: 15,476	Sum Of 99Transfer: 0		
Northwest Etch Tech Inc - Tacoma	Copper	0	0	0	0	6,200	0	6,400
	Hydrochloric Acid	0	0	0	0	1,440		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 7,640		
Pace Industries Puget Division - Tacoma	Copper	0	0	156	156	7,497	159	13,662
	Manganese	0	0	32	32	1,071		
	Nickel	0	0	31	31	1,071		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 219	Sum Of 99 Releases: 219	Sum Of 99Transfer: 9,639		
Parker Paint Mfg Co Inc - Tacoma	Ethylene Glycol	0	0	3,407	3,407	0	3,201	0
	Toluene	0	0	966	966	2,513	938	2,177
	Xylene (Mixed Isomers)	0	0	3,187	3,187	4,579	5,980	769
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 7,560	Sum Of 99 Releases: 7,560	Sum Of 99Transfer: 7,092		
Pioneer Americas, Inc - Tacoma	Asbestos (Friable)	0	0	1	1	0	1	0
	Chlorine	0	0	260	260	0	252	0
	Dichlorodifluoromethane (Cfc-12)	0	0	21,548	21,548	8,668	22,030	0
	Hydrochloric Acid	0	0	154	154	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 21,963	Sum Of 99 Releases: 21,963	Sum Of 99Transfer: 8,668		
Pioneer Americas, Inc. Bleach – Tacoma	Chlorine	0	0	15	15	0	7	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Raven Industries, Inc., Norcor – Tacoma	Styrene	0	0	36,209	36,209	1,450	29,206	0
Simpson Tacoma Kraft Co – Tacoma	Acetaldehyde	11,300	0	45,604	56,904	0	56,404	0
	Ammonia	7,400	0	99,300	106,700	0	94,700	0
	Barium Compounds	3,560	0	28	3,588	17	12,338	17
	Catechol	40	0	0	40	0	57	0
	Chlorine	0	0	51	51	0	56	0
Simpson Tacoma Kraft Co - Tacoma	Chlorine Dioxide	0	0	765	765	0	7,000	0
	Chloroform	3,300	0	34,800	38,100	0	41,350	0
	Cresol (Mixed Isomers)	1	0	30,400	30,401	0	32,774	0
	Formaldehyde	3,200	0	13,415	16,615	0	27,300	0
	Formic Acid	3,000	0	0	3,000	0	0	0
	Glycol Ethers	100	0	1,740	1,840	0		
	Hydrochloric Acid	0	0	36,600	36,600	0		
	Manganese Compounds	16,100	0	214	16,314	86	17,150	67
	Methanol	2,400	0	502,760	505,160	0	647,080	0
	Nitrate Compounds	38,700	0	0	38,700	0	40,500	
	Nitric Acid	0	0	0	0	0	0	0
	Phenol	0	0	21,000	21,000	0	20,900	0
	Sulfuric Acid	0	0	31,800	31,800	0	31,000	0
		Sum Of Water: 89,101	Sum Of Land: 0	Sum Of Air: 854,701	Sum Of 99 Releases: 943,802	Sum Of 99Transfer: 1,553		
Sol-Pro, Inc - Tacoma	Methanol	0	0	103	103	0	127	
	Methyl Ethyl Ketone	0	0	436	436	0	314	
	Methyl Isobutyl Ketone	0	0	29	29	0	20	
	N-Methyl-2-Pyrrolidone	0	0	316	316	0	99	
	Toluene	0	0	730	730	0	398	
	Xylene (Mixed Isomers)	0	0	22	22	0	21	
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 1,636	Sum Of 99 Releases: 1,636	Sum Of 99Transfer: 0		
Tacoma Rubber Stamp Company – Tacoma	Tetrachloroethylene	0	0	10,365	10,365	15,638	26,105	15,680
Thermafiber – Tacoma	Carbonyl Sulfide	0	0	71,184	71,184	0		
Toray Composites (America) – Tacoma	Methanol	0	0	13,000	13,000	43,500	11,000	69,000
	Methyl Ethyl Ketone	0	0	27,000	27,000	126,000	48,000	254,000
	N-Methyl-2-Pyrrolidone	0	0	5,500	5,500	145,000	5,900	209,000
	Toluene	0	0	26,000	26,000	96,000	33,000	152,000
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 153,049	Sum Of 99 Releases: 153,049	Sum Of 99Transfer: 426,138		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
U.S. Oil & Refining Co - Tacoma	Benzene	0	0	2,138	2,138	250	2,872	0
	Cyclohexane	0	0	1,147	1,147	250	1,528	0
	Ethylbenzene	0	0	849	849	250	1,075	250
	N-Hexane	0	0	2,985	2,985	0	3,759	0
	Naphthalene	0	0	43	43	250	56	250
	Toluene	0	0	4,725	4,725	500	5,645	250
	Xylene (Mixed Isomers)	0	0	5,185	5,185	250	6,579	250
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 17,072	Sum Of 99 Releases: 17,072	Sum Of 99Transfer: 1,750		
U.S.Dod U.S.Army Fort Lewis – Fort Lewis	Chlorine	0	0	0	0	0	0	0
	Ethylene Glycol	0	130	14	144	61,420	31,620	67,931
		Sum Of Water: 0	Sum Of Land: 130	Sum Of Air: 14	Sum Of 99 Releases: 144	Sum Of 99Transfer: 61,420		
County Totals		Sum Of Water1: 89,650	Sum Of Land1: 140	Sum Of Air1: 1,631,636	Sum Of 99 Releases1: 1,721,426	Sum Of 99Transfer1: XXXXX		
Skagit								
Anacortes Facility Safety Kleen - Anacortes	Ethylene Glycol	0	0	3	3	108,339		
Fibrex Corporation - Burlington	Styrene	0	0	14,789	14,789	0	9,485	0
General Chemical - Anacortes	Sulfuric Acid	0	0	7,542	7,542	0		
Hallmark Refining Corp – Mount Vernon	Silver	0	0	0	0	194,107		
March Point Cogeneration - Anacortes	1,3-Butadiene	0	0	0	0	0	0	0
	Ammonia	0	0	270	270	0	480	0
	Ethylene	0	0	0	0	0	0	0
	Propylene	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 22,604	Sum Of 99 Releases: 22,604	Sum Of 99Transfer: 302,446		
Puget Sound Refining Company - Anacortes	1,2,4-Trimethylbenzene	0	52	890	942	0	688	0
	1,3-Butadiene	0	0	460	460	0	350	0
	Ammonia	5,300	0	1,900	7,200	0	9,750	0
Puget Sound Refining Company - Anacortes	Benzene	0	1	2,930	2,931	95	3,047	45
	Carbonyl Sulfide	0	0	690	690	0		
	Cyclohexane	0	3	1,470	1,473	0	916	0
	Ethylbenzene	0	18	920	938	200	982	108

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Ethylene	0	0	33,025	33,025	0	34,020	0
	Methanol	0	0	250	250	0	10	0
	Molybdenum Trioxide	0	0	0	0	34,000	0	65,000
	N-Hexane	0	3	6,200	6,203	0	3,800	0
	Naphthalene	0	23	2	25	183	48	123
	Phenol	110	40	0	150	6,700	100	0
	Polycyclic Aromatic Compounds	0	0	0	0	13	0	0
	Propylene	0	0	19,100	19,100	0	20,098	0
	Sulfuric Acid	0	0	140,000	140,000	0		
	Toluene	0	978	5,300	6,278	663	7,260	541
	Xylene (Mixed Isomers)	0	230	6,100	6,330	1,503	6,028	812
		Sum Of Water: 5,41-	Sum Of Land: 1,348	Sum Of Air: 219,237	Sum Of 99 Releases: 225,995	Sum Of 99Transfer: 43,357		
Tesoro Northwest Company - Anacortes	1,2,4-Trimethylbenzene	50	0	720	770	0	1,200	0
	1,3-Butadiene	0	0	60	60	0	60	0
	Ammonia	2,300	750	1,100	4,150	0	2,420	0
	Benzene	50	0	12,600	12,650	88	10,140	1,210
	Chlorine	0	0	4,330	4,330	0	4,300	0
	Cumene	0	0	170	170	0	200	0
	Cyclohexane	0	0	9,600	9,600	0	13,500	860
	Diethanolamine	0	0	500	500	0	500	0
	Ethylbenzene	50	0	5,500	5,550	313	6,742	1,394
	Ethylene	0	0	5,000	5,000	0	5,000	0
	Glycol Ethers	0	0	1,400	1,400	0		
Tesoro Northwest Company - Anacortes	Hydrochloric Acid	0	0	1	1	0	51	0
	Methanol	0	0	80	80	0	50	0
	Molybdenum Trioxide	0	0	0	0	0	0	0
	N-Hexane	50	0	14,700	14,750	0	31,030	860
	Naphthalene	4	0	1,520	1,524	571	1,640	3,006
	Polycyclic Aromatic Compounds	0	20	180	200	132		
	Propylene	0	0	17,000	17,000	0		
	Sulfuric Acid	0	0	393,000	393,000	0	153,000	0
	Tetrachloroethylene	0	0	3,500	3,500	3	3,512	42
	Toluene	50	0	33,970	34,020	510	29,552	2,116
	Xylene (Mixed Isomers)	0	0	31,800	31,800	2,703	33,810	4,638
		Sum Of Water: 2,554	Sum Of Land: 770	Sum Of Air: 536,731	Sum Of 99 Releases: 540,055	Sum Of 99Transfer: 4,320		
Ttm Technologies - Burlington	Ammonia	0	0	95	95	89,680	78	0
	Copper	0	0	0	0	228,304	0	7,366

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Formaldehyde	0	0	63	63	0	50	5
	Methanol	0	0	10	10	0		
	Nitric Acid	0	0	0	0	0		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 168	Sum Of 99 Releases: 168	Sum Of 99Transfer: 317,984		
County Totals		Sum Of Water1: 7,964	Sum Of Land1: 2,118	Sum Of Air1: 778,740	Sum Of 99 Releases1: 788,822	Sum Of 99Transfer1: 668,107		
Snohomish								
Achilles Usa Inc - Everett	Di(2-Ethylhexyl) Phthalate	0	0	117	117	255	123	5
	Phenol	0	0	7,700	7,700	0	7,900	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 7,817	Sum Of 99 Releases: 7,817	Sum Of 99Transfer: 255		
Aerostructures Corp Contour Wa - Everett	Copper	0	0	0	0	62,200	0	85,400
	Manganese	0	0	0	0	20,445	0	29,500
	Nickel	0	0	0	0	16,500	0	26,000
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 99,145		
American Boiler Works, Inc - Everett	Methyl Ethyl Ketone	0	0	10,244	10,244	500	19,340	500
Boeing Commercial Airplane Group - Everett	Ammonia	0	0	17,800	17,800	48	15,600	189
	Barium Compounds	0	0	66	66	8,922		
	Chromium Compounds	81	0	105	186	43,605	2,481	102,547
	Copper	122	0	0	122	81,273	2,178	132,934
	Diethanolamine	0	0	62,000	62,000	9,505		
	Freon 113	0	0	54,000	54,000	19,880	84,000	13,255
	Glycol Ethers	0	0	17,800	17,800	102,752		
	Manganese Compounds	0	0	2	2	28,690	1	32,349
	Methanol	0	0	3,560	3,560	4,260	7,220	
	Methyl Ethyl Ketone	256	0	200,000	200,256	66,418	281,416	205,932
	Methyl Isobutyl Ketone	0	0	23,400	23,400	15,032	27,800	18,629
	Naphthalene	0	0	18	18	1,501	12	606
	Nitrate Compounds	0	0	0	0	42,006	0	58,386
	Nitric Acid	0	0	0	0	49,400	0	64,300
	Phenol	0	0	7,110	7,110	3,356	8,340	7,841
	Sec-Butyl Alcohol	0	0	20,000	20,000	12,230	24,400	16,647
	Toluene	41	0	62,300	62,341	42,104	112,546	103,791
	Trichloroethylene	0	0	105,400	105,400	7,900	102,100	19,600
	Xylene (Mixed Isomers)	41	0	14,400	14,441	5,761	18,168	20,266

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
		Sum Of Water: 541	Sum Of Land: 0	Sum Of Air: 598,205	Sum Of 99 Releases: 598,746	Sum Of 99Transfer: 545,143		
Canyon Creek Cabinet Company - Monroe	Methanol	0	0	10,973	10,973	2,743		
Chevron Products Company, Rich - Seattle	1,2,4-Trichlorobenzene	0	0	270	270	0		
	Benzene	138	0	523	661	5	747	0
	Cresol (Mixed Isomers)	0	0	69	69	0		
	Cumene	0	0	359	359	0		
Chevron Products Company, Rich - Seattle	Cyclohexane	138	0	1,109	1,247	5	1,256	0
	Ethylbenzene	0	0	754	754	0	865	0
	N-Hexane	276	0	4,342	4,618	5	5,100	0
	Naphthalene	0	0	49	49	0		
	Phenol	0	0	10	10	0		
	Styrene	0	0	432	432	0		
	Toluene	40	0	1,979	2,019	5	2,312	0
	Xylene (Mixed Isomers)	48	0	882	930	5	1,045	0
		Sum Of Water: 640	Sum Of Land: 0	Sum Of Air: 21,751	Sum Of 99 Releases: 22,391	Sum Of 99Transfer: 2,768		
Circuits Engineering Inc - Bothell	Copper	0	0	0	0	84,348	0	45,095
Coastal Mfg - Mukilteo	Methyl Ethyl Ketone	0	0	2,826	2,826			
Cook Composites And Polymers - Arlington	Methyl Methacrylate	0	0	1,000	1,000	750	1,000	267
	Styrene	0	0	2,923	2,923	4,286	2,540	1,961
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 6,749	Sum Of 99 Releases: 6,749	Sum Of 99Transfer: 89,384		
Fluke Corporation - Everett	Ammonia	0	0	12	12	24,208	12	24,604
	Copper Compounds	0	0	0	0	27,587	0	22,408
	Nitric Acid	0	0	38	38	0	38	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 50	Sum Of 99 Releases: 50	Sum Of 99Transfer: 51,795		
Industrial Finishings - Snohomish	Methyl Ethyl Ketone	0	0	24,237	24,237	1,500	22,025	688
	Xylene (Mixed Isomers)	0	0	13,629	13,629	1,000	25,345	459
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 37,866	Sum Of 99 Releases: 37,866	Sum Of 99Transfer: 2,500		
Kimberly-Clark Tissue Company - Everett	Ammonia	39,400	0	3,870	43,270	0	62,030	0
	Barium Compounds	5,360	0	4	5,364	20,500	6,200	54,400
	Chlorine	0	0	930	930	0	1,000	0
	Chloroform	11,200	0	103,700	114,900	0	121,100	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Chromium Compounds	250	0	4	254	51,900		
Kimberly-Clark Tissue Company - Everett	Formic Acid	0	0	0	0	0	0	0
	Manganese Compounds	31,500	0	5	31,505	38,900	32,700	12,100
	Methanol	99,000	0	48,800	147,800	0	146,300	0
	Nickel Compounds	1,020	0	5	1,025	37,550		
	Nitrate Compounds	357,500	0	0	357,500	0	357,000	0
	Vinyl Acetate	900	0	8,180	9,080	0	1,950	0
	Zinc Compounds	7,200	0	6	7,206	24,500	8,200	7,800
		Sum Of Water: 553,330	Sum Of Land: 0	Sum Of Air: 165,504	Sum Of 99 Releases: 718,834	Sum Of 99Transfer: 173,350		
Reynolds Corp - Lynnwood	Styrene	0	0	1,970	1,970	0	2,856	0
Skagit Marine Distributing - Monroe	Styrene	0	0	7,705	7,705	0		
Spectrum Glass Co Inc - Woodinville	Cadmium Compounds	0	0	0	0	60	22	67
	Copper Compounds	0	0	4	4	13		
	Manganese Compounds	0	0	1	1	16	36	20
	Zinc Compounds	0	0	55	55	237	286	200
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 9,735	Sum Of 99 Releases: 9,735	Sum Of 99Transfer: 326		
Tiz's Door Sales Inc - Everett	Toluene	0	0	12,160	12,160	250	14,728	250
	Xylene (Mixed Isomers)	0	0	16,636	16,636	250	18,995	250
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 28,796	Sum Of 99 Releases: 28,796	Sum Of 99Transfer: 500		
Us Marine/Bayliner Marine - Arlington	Dimethyl Phthalate	0	0	130	130	0		
	Styrene	0	0	130,523	130,523	0	117,461	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 130,653	Sum Of 99 Releases: 130,653	Sum Of 99Transfer: 0		
County Totals		Sum Of Water1: 554,511	Sum Of Land1: 0	Sum Of Air1: 1,007,126	Sum Of 99 Releases1: 1,561,637	Sum Of 99Transfer1: 965,166		
Spokane								
Adm Animal Health & Nutrition - Spokane	Zinc Compounds	0	0	3	3	1,744	6	1,973
Apollo Plastics, Inc - Spokane	Styrene	0	0	1,026	1,026	0	3,218	0
Columbia Paint & Coatings - Spokane	Ethylbenzene	0	0	255	255	0		
	Ethylene Glycol	0	0	7,321	7,321	0	2,750	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Columbia Paint & Coatings - Spokane	Methanol	0	0	7,150	7,150	0	3,050	0
	Toluene	0	0	3,959	3,959	0	1,000	0
	Xylene (Mixed Isomers)	0	0	2,993	2,993	0	500	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 22,707	Sum Of 99 Releases: 22,707	Sum Of 99Transfer: 1,744		
Conoco Parkwater Product Terminal - Spokane	1,2,4-Trimethylbenzene	0	0	442	442	119	500	4,635
	Benzene	0	0	1,411	1,411	78	1,408	2,675
	Cumene	0	0	645	645	239	500	9,271
	Ethylbenzene	0	0	390	390	78	500	2,425
	Methyl Tert-Butyl Ether	0	0	2,265	2,265	132	2,253	5,122
	N-Hexane	0	0	2,291	2,291	107	2,279	4,172
	Toluene	0	0	1,908	1,908	376	1,898	14,852
	Xylene (Mixed Isomers)	0	0	888	888	388	1,000	15,065
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 10,240	Sum Of 99 Releases: 10,240	Sum Of 99Transfer: 1,517		
Honeywell Electronic Materials - Spokane	Copper Compounds	0	0	10	10	98,970	5	559,650
	Copper Compounds	0	0	0	0	130,005		
	Dichloromethane	0	0	27,000	27,000	250	29,000	750
	Lead	0	0	5	5	17,255	5	14,255
	N-Hexane	0	0	12,000	12,000	2,300	12,000	6,600
	Nickel Compounds	0	0	10	10	38,050	10	43,000
	Nitrate Compounds	0	0	10	10	90,000	10	150,000
	Nitric Acid	0	0	500	500	0	1,000	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 39,535	Sum Of 99 Releases: 39,535	Sum Of 99Transfer: 376,830		
Huntwood Ind - Spokane	Toluene	0	0	82,759	82,759	9,176	113,468	15,500
Kaiser Aluminum & Chemical - Mead	Carbonyl Sulfide	0	0	495,000	495,000	0	498,000	0
	Chlorine	0	0	219,000	219,000	0	247,600	0
	Chromium	7	0	97	104	171	140	146
Kaiser Aluminum & Chemical - Mead	Copper	35	5	500	540	10,500	568	17,615
Spokane	Copper	9	0	89	98	506	102	406
	Glycol Ethers	0	0	735	735	9,984		
	Hydrochloric Acid	0	0	23,200	23,200	0		
Mead	Hydrogen Fluoride	0	0	415,000	415,000	0	1,984,000	0
	Lithium Carbonate	250	0	255	505	0	505	0
Spokane	Manganese	9	0	327	336	509	316	357
	Methyl Ethyl Ketone	0	0	3,043	3,043	722,314	3,084	526,971
	Methyl Isobutyl Ketone	0	0	997	997	19,968	1,011	14,637

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
Mead	Polycyclic Aromatic Compounds	5	250	500	755	250	750	250
Spokane	Toluene	0	0	3,408	3,408	129,792	3,395	95,138
	Xylene (Mixed Isomers)	0	0	672	672	22,618	339	17,747
		Sum Of Water: 315	Sum Of Land: 255	Sum Of Air: 1,245,582	Sum Of 99 Releases: 1,246,152	Sum Of 99Transfer: 925,788		
Melcher Manufacturing Co Inc – Spokane	Styrene	0	0	18,419	18,419	0	21,068	0
Mica Brick Plant – Mica	Hydrogen Fluoride	0	0	42,479	42,479	0	28,000	0
Spokane Galvanizing, Inc – Airway Heights	Sulfuric Acid	0	0	750	750	0		
	Zinc (Fume Or Dust)	0	0	750	750	157,821	750	92,229
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 62,398	Sum Of 99 Releases: 62,398	Sum Of 99Transfer: 157,821		
Spokane Metal Prods – Spokane	Chromium	0	0	5	5	8,600	5	9,400
	Nickel	0	0	5	5	4,500	5	4,900
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 10	Sum Of 99 Releases: 10	Sum Of 99Transfer: 13,100		
Spokane Steel - Spokane	Chromium	0	0	10	10	0	10	250
	Manganese	0	0	500	500	5,100	255	7,500
	Molybdenum Trioxide	0	0	500	500	750		
	Nickel	0	0	10	10	250	10	250
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 1,020	Sum Of 99 Releases: 1,020	Sum Of 99Transfer: 6,100		
Travis Pattern And Foundry – Spokane	Copper	0	0	0	0	0	0	0
	Trichloroethylene	0	0	3,980	3,980	640	5,280	601
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 3,980	Sum Of 99 Releases: 3,980	Sum Of 99Transfer: 640		
United Paint Manufacturing - Green Acres	Diisocyanates	0	0	0	0	300	0	700
	Ethylbenzene	0	0	900	900	300	1,300	541
	Xylene (Mixed Isomers)	0	0	2,700	2,700	800	3,900	1,527
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 3,600	Sum Of 99 Releases: 3,600	Sum Of 99Transfer: 1,400		
Us Marine/Bayliner Marine - Spokane	Dimethyl Phthalate	0	0	141	141	0		
	Styrene	0	0	182,148	182,148	0	112,284	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 182,289	Sum Of 99 Releases: 182,289	Sum Of 99Transfer: 0		
County Totals		Sum Of Water1: 315	Sum Of Land1: 255	Sum Of Air1: 1,571,361	Sum Of 99 Releases1:	Sum Of 99Transfer1:		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
					1,571,931	1,484,940		
Stevens								
Aladdin Hearth Products - Colville	Chromium	0	0	4	4	0	30	0
	Nickel	0	0	3	3	0	29	0
	Toluene	0	0	32,722	32,722	180	32,870	180
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 32,729	Sum Of 99 Releases: 32,729	Sum Of 99Transfer: 180		
Boise Cascade Kettle Falls Ply – Kettle Falls	Methanol	0	0	25,748	25,748	0	25,784	0
Northwest Alloys, Inc - Addy	Ammonia	0	8,352	58,192	66,544	0	51,157	0
	Copper	0	0	329	329	0	318	0
	Hydrochloric Acid	0	0	6,507	6,507	0		
		Sum Of Water: 0	Sum Of Land: 8,352	Sum Of Air: 90,776	Sum Of 99 Releases: 99,128	Sum Of 99Transfer: 0		
County Totals		Sum Of Water1: 0	Sum Of Land1: 8,352	Sum Of Air1: 123,505	Sum Of 99 Releases1: 131,857	Sum Of 99Transfer1: 180		
Thurston								
Amtech Corp - Yelm	Styrene	0	0	52,400	52,400	0	66,000	0
Crown Beverage Packaging - Olympia	Glycol Ethers	0	0	175,000	175,000	0	169,881	0
	Hydrogen Fluoride	0	0	0	0	0	0	0
Crown Beverage Packaging - Olympia	Manganese Compounds	0	0	0	0	255	0	255
	N-Butyl Alcohol	0	0	161,000	161,000	0	163,491	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 388,400	Sum Of 99 Releases: 388,400	Sum Of 99Transfer: 255		
Lasco Bathware Inc - Yelm	Styrene	0	0	498,104	498,104	250	485,996	250
Sorrento Lactalis Inc – Lacey	Nitrate Compounds	0	700	0	700	750	1,500	0
	Nitric Acid	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 700	Sum Of Air: 498,104	Sum Of 99 Releases: 498,804	Sum Of 99Transfer: 1,000		
County Totals		Sum Of Water1: 0	Sum Of Land1: 700	Sum Of Air1: 886,504	Sum Of 99 Releases1: 887,204	Sum Of 99Transfer1: 1,255		
Walla Walla								
Boise Cascade Paper Division - Wallula	Acetaldehyde	1,500	58	38,500	40,058	0	39,158	0
	Ammonia	28,746	0	167,500	196,246	0	182,500	0
	Catechol	61	1	0	62	0	65	0
	Chlorine	0	0	384	384	0	372	0
	Chlorine Dioxide	0	0	1,930	1,930	0	4,100	0
	Chloroform	500	22	48,000	48,522	0	37,781	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Formaldehyde	2,600	21	2,350	4,971	0		
	Formic Acid	1,800	0	0	1,800	0	0	0
	Hydrochloric Acid	0	0	709,000	709,000	0	492,000	0
	Manganese Compounds	22,700	10,400	1,000	34,100	11	37,700	7
	Methanol	46,000	5,100	409,600	460,700	0	514,300	0
	Nitrate Compounds	27,000	0	0	27,000	0	28,000	0
	Phenol	0	20	500	520	0	858	0
	Sulfuric Acid	0	0	75,000	75,000	0	24,000	0
		Sum Of Water: 130,907	Sum Of Land: 15,622	Sum Of Air: 1,453,764	Sum Of 99 Releases: 1,600,293	Sum Of 99Transfer: 11		
Ibp Inc - Wallula	Ammonia	0	8,000	31,750	39,750	37,000	26,100	45,000
	Chlorine	0	0	5	5	0	5	0
	Chromium Compounds	0	0	10	10	8,000		
		Sum Of Water: 0	Sum Of Land: 8,000	Sum Of Air: 31,765	Sum Of 99 Releases: 39,765	Sum Of 99Transfer: 45,000		
Nelson Irrigation Corp – Walla Walla	Copper	0	0	250	250	308,165	250	365,475
	Lead	0	0	250	250	17,690	250	23,050
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 500	Sum Of 99 Releases: 500	Sum Of 99Transfer: 325,855		
Pf Acquisition Ii Inc – Walla Walla	Ammonia	0	0	15,080	15,080	0	20,900	0
Reiff Manufacturing – Walla Walla	Styrene	0	0	1,609	1,609	0	5,212	0
County Totals		Sum Of Water1: 130,907	Sum Of Land1: 23,622	Sum Of Air1: 1,502,718	Sum Of 99 Releases1: 1,657,247	Sum Of 99Transfer1: 370,866		
Whatcom								
Arco Cherry Point Refinery - Blaine	1,2,4-Trimethylbenzene	0	5	6,500	6,505	0	5,148	0
	1,3-Butadiene	0	0	298	298	0	288	0
	Ammonia	6,200	0	790	6,990	0	11,790	0
	Benzene	2	2	35,400	35,404	125	24,411	113
	Cresol (Mixed Isomers)	0	0	72	72	0	71	9
	Cumene	0	2	930	932	0	712	0
	Cyclohexane	0	9	8,080	8,089	0	6,294	0
	Diethanolamine	3,100	0	1,240	4,340	0	13,220	0
	Ethylbenzene	0	0	7,240	7,240	0	6,820	90
	Ethylene	0	0	588	588	0	587	0
	Manganese Compounds	750	0	64	814	40,000	820	0
	Methanol	0	0	13,960	13,960	6	6,700	2

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Molybdenum Trioxide	0	0	0	0	0		
	N-Hexane	0	17	35,600	35,617	0	18,727	0
	Naphthalene	0	0	851	851	0	830	0
	Nitrate Compounds	26,000	0	0	26,000	0	26,000	0
	Phenol	400	0	211	611	0		
	Propylene	0	0	870	870	0	860	0
	Sulfuric Acid	0	0	170,000	170,000	0		
	Tetrachloroethylene	0	0	0	0	0		
	Toluene	1	0	51,600	51,601	0	36,001	0
Arco Cherry Point Refinery - Blaine	Xylene (Mixed Isomers)	0	0	33,300	33,300	15	27,401	820
		Sum Of Water: 36,453	Sum Of Land: 35	Sum Of Air: 384,283	Sum Of 99 Releases: 420,771	Sum Of 99Transfer: 40,146		
Darigold - Lynden	Nitrate Compounds	0	0	0	0	58,559	0	54,796
	Nitric Acid	0	0	0	0	601	0	5
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 59,160		
Encogen NW Cogeneration – Bellingham	Ammonia	0	0	54,005	54,005	0	59,005	
Ershigs, Inc – Bellingham	Styrene	0	0	75,454	75,454	10,400	63,297	6,800
Georgia-Pacific West, Inc - Bellinham	Acetaldehyde	26,000	0	33,000	59,000	0	52,000	0
	Acrylic Acid	0	0	141	141	0	181	0
	Ammonia	120,000	0	860	120,860	0	97,756	0
	Chlorine	0	0	420	420	0	540	0
	Chlorine Dioxide	0	0	64	64	0	101	0
	Chloroform	9	0	63,000	63,009	0	137,800	0
	Chromium Compounds	11,000	0	350	11,350	233	36,450	1,053
	Dichlorodifluoromethane (Cfc-12)	0	0	6,000	6,000	0	3,000	0
	Formaldehyde	120	0	1,607	1,727	0	1,878	0
	Formic Acid	0	0	1,000	1,000	0	1,000	0
	Hydrochloric Acid	0	0	97,054	97,054	0		
	Manganese Compounds	52,000	0	124	52,124	1,700	165,134	1,010
	Mercury Compounds	17	0	589	606	35,201	1,298	1,289
	Methanol	950	0	30,280	31,230	0	130,270	0
	Methyl Isobutyl Ketone	0	0	467	467	0	489	0
	Nitrate Compounds	150,000	0	0	150,000	0	160,000	0
	Nitric Acid	0	0	1,303	1,303	0	1,303	0
	Sulfuric Acid	0	0	5,500	5,500	0		
	Zinc Compounds	6,300	0	149	6,449	684	20,259	601
		Sum Of Water:	Sum Of Land: 0	Sum Of Air:	Sum Of 99 Releases:	Sum Of 99Transfer:		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
		366,396		371,367	737,763	48,218		
Intalco Aluminum Corporation - Ferndale	Aluminum (Fume Or Dust)	0	40	1,031	1,071	5,000	1,071	
	Carbonyl Sulfide	0	0	526,500	526,500	0	507,078	0
	Hydrogen Fluoride	0	0	76,380	76,380	0	97,131	0
	Lithium Carbonate	0	0	847	847	0	847	
	Polycyclic Aromatic Compounds	0	0	10,419	10,419	0	4,344	0
		Sum Of Water: 0	Sum Of Land: 40	Sum Of Air: 615,177	Sum Of 99 Releases: 615,217	Sum Of 99Transfer: 5,000		
Lister Chain And Forge, Division - Blaine	Manganese	0	0	0	0	3,740	0	4,907
	Nickel	0	0	0	0	3,410		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 0	Sum Of 99 Releases: 0	Sum Of 99Transfer: 7,150		
Maax-Hydro Swirl Mfg. Corp - Bellingham	Styrene	0	0	101,947	101,947	0	93,288	0
Oceanus Plastics Inc – Ferndale	Styrene	0	0	7,608	7,608	1,636	2,542	6,795
Praxair Inc – Ferndale	Ammonia	0	0	27,291	27,291	0	27,220	9,000
Tenaska Washington Partners Fe – Ferndale	Ammonia	0	0	4,100	4,100	0	3,500	0
Tosco Refining Company – Ferndale	1,2,4-Trimethylbenzene	0	1	316	317	3	1,310	0
	1,3-Butadiene	0	0	103	103	0	579	0
	Ammonia	3,700	0	270	3,970	0	3,670	0
	Benzene	0	23	2,300	2,323	2	3,220	0
	Cresol (Mixed Isomers)	0	2	4	6	6		
	Cumene	0	10	1,026	1,036	59	1,735	0
	Cyclohexane	0	21	3,700	3,721	1	8,842	0
	Diethanolamine	0	0	440	440	0	640	0
	Ethylbenzene	0	1	1,050	1,051	2	4,371	0
	Ethylene	0	0	2,252	2,252	0	1,740	0
	Hydrogen Fluoride	0	0	290	290	0	452	0
	Manganese	520	0	0	520	0		
	Methanol	0	0	16	16	0		
Tosco Refining Company – Ferndale	N-Hexane	0	33	5,880	5,913	0	5,308	0
	Naphthalene	0	0	680	680	2	649	0
	Nitrate Compounds	36,000	0	0	36,000	0	34,000	0
	Phenol	82	0	0	82	0		
	Propylene	0	0	1,951	1,951	0	1,471	0
	Sulfuric Acid	0	0	190,000	190,000	0		

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
	Tetrachloroethylene	0	0	4	4	0		
	Toluene	0	19	8,800	8,819	86	11,180	0
	Xylene (Mixed Isomers)	0	87	2,100	2,187	8	7,177	0
		Sum Of Water: 40,302	Sum Of Land: 197	Sum Of Air: 362,128	Sum Of 99 Releases: 402,627	Sum Of 99Transfer: 1,805		
Wright Bros., Inc – Bellingham	Styrene	0	0	11,881	11,881	0	8,737	0
County Totals		Sum Of Water1: 443,151	Sum Of Land1: 272	Sum Of Air1: 1,728,147	Sum Of 99 Releases1: 2,171,570	Sum Of 99Transfer1: 161,479		
Yakima								
Bay Zinc Company, Inc – Moxee	Copper Compounds	0	0	2	2	6,160	4	1,223
	Lead Compounds	0	0	3	3	46,304	29	16,124
	Sulfuric Acid	0	0	0	0	0		
	Zinc Compounds	0	0	1,409	1,409	21,560	1,586	4,170
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 13,295	Sum Of 99 Releases: 13,295	Sum Of 99Transfer: 74,024		
Canam Steel Corporation - Sunnyside	Glycol Ethers	0	0	14,991	14,991	0		
Darigold - Sunnyside	Ammonia	0	0	0	0	255		
	Benzoyl Peroxide	0	0	20	20	356	26	428
	Nitrate Compounds	0	0	0	0	392,294	0	298,052
	Nitric Acid	0	0	0	0	0	0	0
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 15,011	Sum Of 99 Releases: 15,011	Sum Of 99Transfer: 392,905		
John L Haas Inc - Yakima	N-Hexane	0	0	28,000	28,000	5	45,000	5
Pace International - Wapato	Diphenylamine	0	250	0	250	0	250	0
	Manganese Compounds	0	250	0	250	0	250	0
Pace International - Wapato	Zinc Compounds	0	750	0	750	715	250	0
		Sum Of Water: 0	Sum Of Land: 1,250	Sum Of Air: 28,000	Sum Of 99 Releases: 29,250	Sum Of 99Transfer: 720		
Safeway Juice & Dressing Plant - Grandview	Ammonia	0	0	13,500	13,500	0		
Shields Bag & Printing Co – Yakima	Dibutyl Phthalate	0	0	5,488	5,488	530		501
	Methanol	0	0	4,332	4,332	417		
		Sum Of Water: 0	Sum Of Land: 0	Sum Of Air: 23,320	Sum Of 99 Releases: 23,320	Sum Of 99Transfer: 947		
Trail Wagons Inc – Yakima	Styrene	0	0	39,850	39,850	0	19,119	0
Tree Top Inc Ross Plant - Selah	Nitrate Compounds	0	0	0	0	77,300	0	74,400
Western Recreational Vehicles - Yakima	Styrene	0	0	14,636	14,636	0	18,440	0

Facility	Chemical	Water	Land	Air	99 Releases	99Transfers	98 Releases	98 Transfers
County Totals		Sum Of Water1: 0	Sum Of Land1: 1,250	Sum Of Air1: 122,231	Sum Of 99 Releases1: 123,481	Sum Of 99Transfer1: 545,896		
State Totals		<u>Water Grand Total</u> Sum: 3,100,145	<u>Land Grand Total</u> Sum: 2,461,951	<u>Air Grand Total Sum:</u> 20,178,440	<u>99 Releases Grand</u> Total Sum: 25,740,536	<u>99Transfer Grand Total</u> Sum: 19,969,380		